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Marathe et al.

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(54) **EFFECTIVE BROADCASTING OF EMERGENCY MESSAGES**

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H04W 4/22	(2009.01)
H04W 4/00	(2009.01)
H04W 4/02	(2009.01)
H04W 4/06	(2009.01)

(52) **U.S. Cl.**

CPC ***H04H 20/59*** (2013.01); ***H04W 4/001*** (2013.01); ***H04W 4/22*** (2013.01); *H04W 4/021* (2013.01); *H04W 4/06* (2013.01)

(58) **Field of Classification Search**

None

See application file for complete search history.

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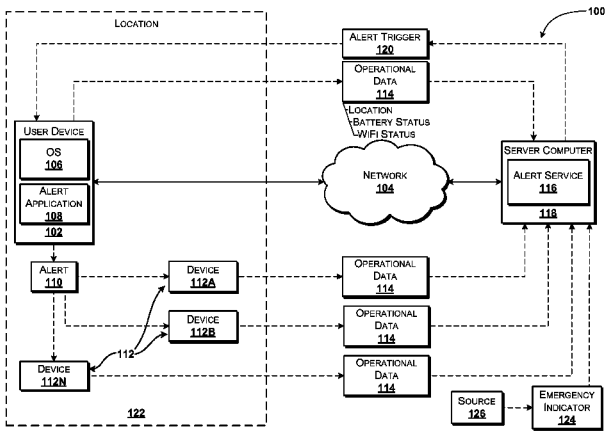
(74) *Attorney, Agent, or Firm* — Hartman & Citrin LLC

(57) **ABSTRACT**

Concepts and technologies are disclosed herein for effective broadcasting of emergency messages. An emergency indicator that indicates that an emergency condition exists can be received. A geographic area affected by the emergency condition can be determined and a plurality of devices and a user device located at the geographic area can be identified. The user device can be selected to broadcast an alert to the plurality of devices, and an alert trigger can be sent to the user device. The alert trigger can cause the user device to activate a wireless hotspot at the user device, the wireless hotspot being associated with a dedicated service set identifier, and to broadcast, via the wireless hotspot, an alert indicating the emergency condition.

20 Claims, 8 Drawing Sheets



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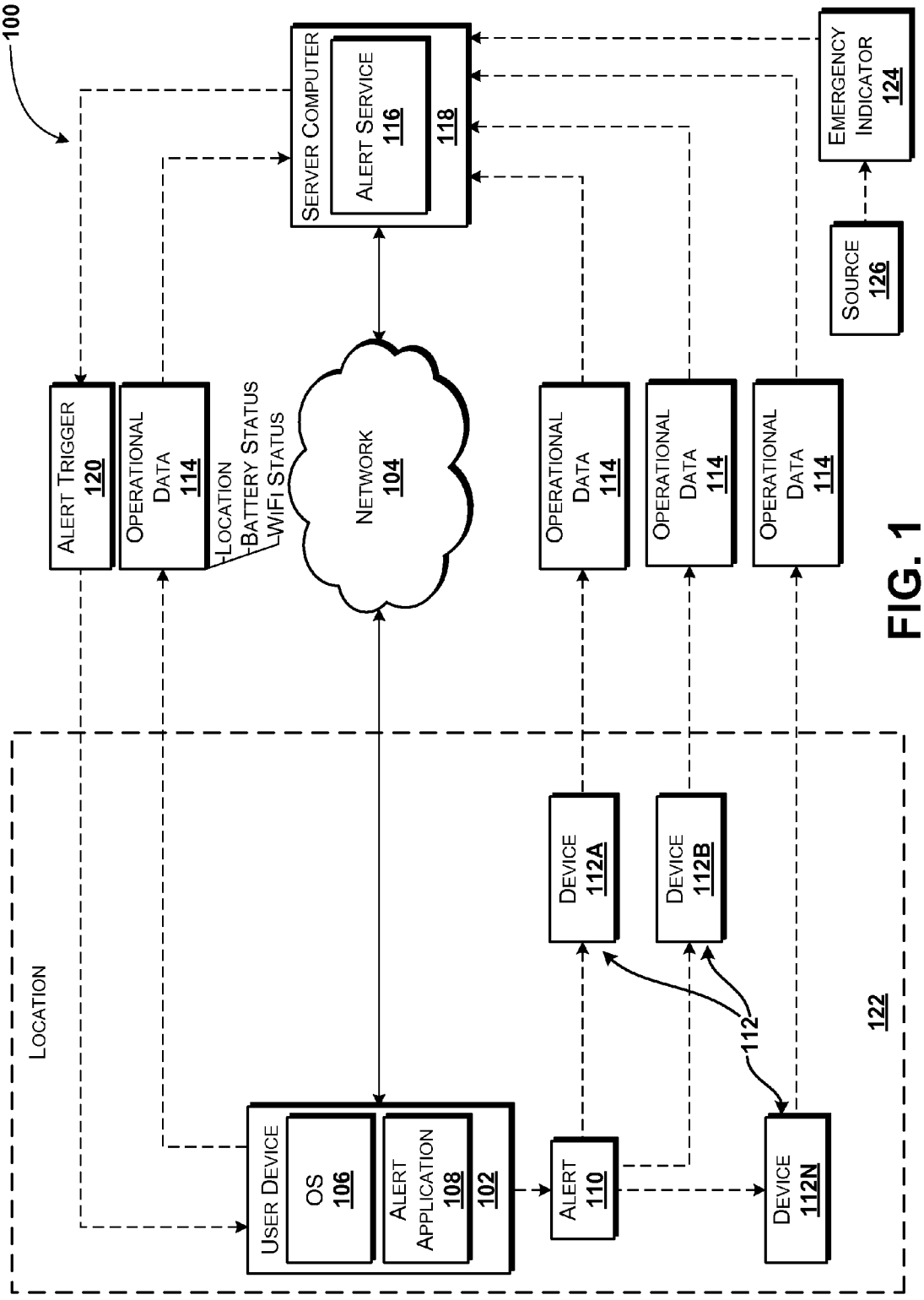
100
SERVER COMPUTER
ALERT SERVICE 116
118
EMERGENCY INDICATOR 124
SOURCE 126
ALERT TRIGGER 120
OPERATIONAL DATA 114
LOCATION
BATTERY STATUS
WIFI STATUS
NETWORK 104
OPERATIONAL DATA 114
OPERATIONAL DATA 114
OPERATIONAL DATA 114
DEVICE 112A
DEVICE 112B
LOCATION
122
112
USER DEVICE
OS 106
ALERT APPLICATION 108
102
ALERT 110
DEVICE 112N

FIG. 1

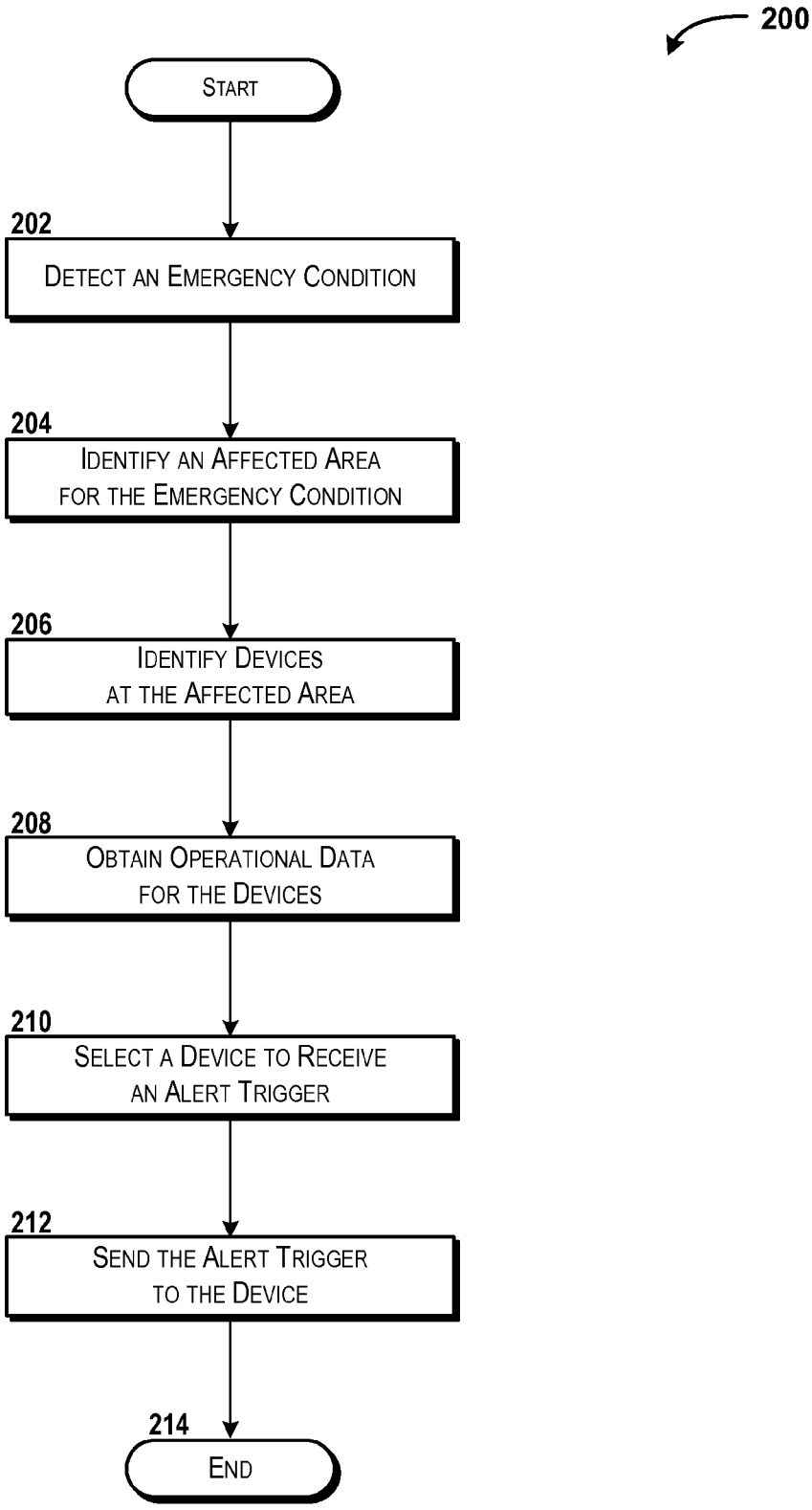
200
START
202
DETECT AN EMERGENCY CONDITION
204
IDENTIFY AN AFFECTED AREA FOR THE EMERGENCY CONDITION
206
IDENTIFY DEVICES AT THE AFFECTED AREA
208
OBTAIN OPERATIONAL DATA FOR THE DEVICES
210
SELECT A DEVICE TO RECEIVE AN ALERT TRIGGER
212
SEND THE ALERT TRIGGER TO THE DEVICE
214
END

FIG. 2

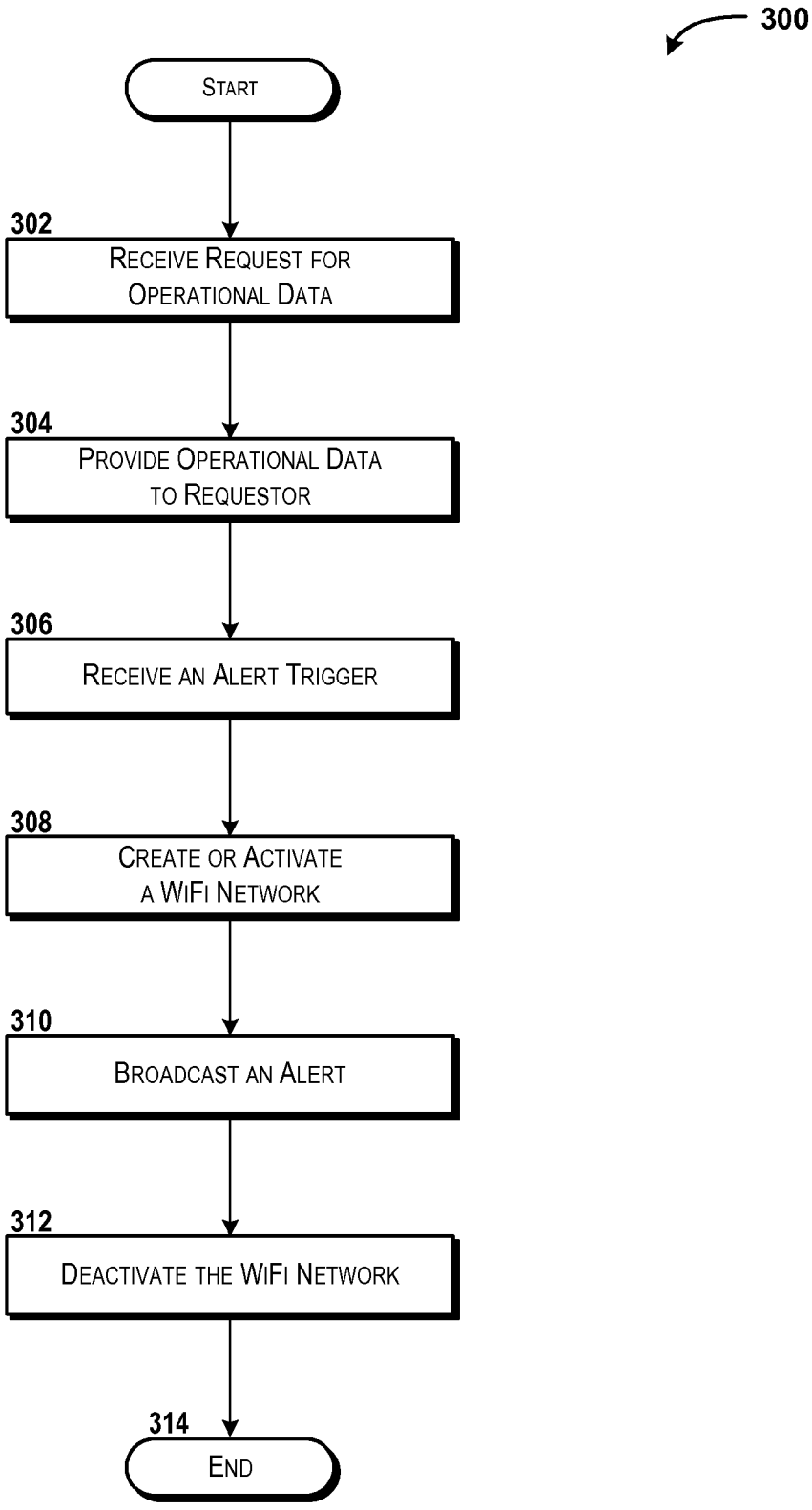
300
START
302
RECEIVE REQUEST FOR OPERATIONAL DATA
304
PROVIDE OPERATIONAL DATA TO REQUESTOR
306
RECEIVE AN ALERT TRIGGER
308
CREATE OR ACTIVATE A WIFI NETWORK
310
BROADCAST AN ALERT
312
DEACTIVATE THE WIFI NETWORK
314
END

FIG. 3

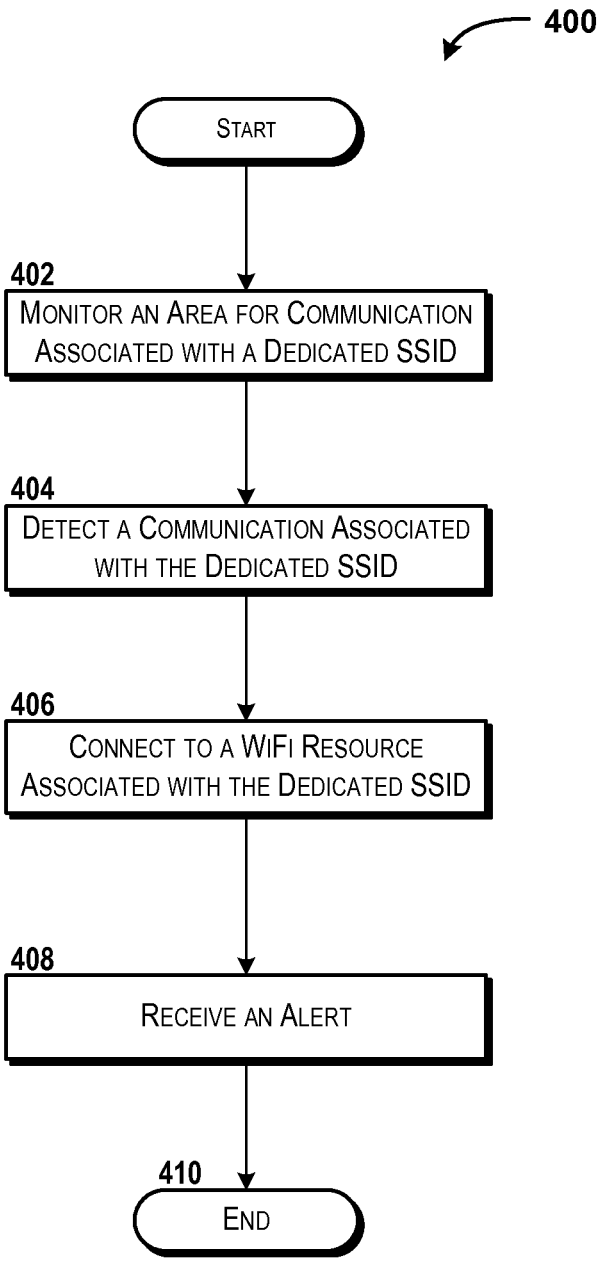
400
START
402
MONITOR AN AREA FOR COMMUNICATION ASSOCIATED WITH A DEDICATED SSID
404
DETECT A COMMUNICATION ASSOCIATED WITH THE DEDICATED SSID
406
CONNECT TO A WIFI RESOURCE ASSOCIATED WITH THE DEDICATED SSID
408
RECEIVE AN ALERT
410
END

FIG. 4

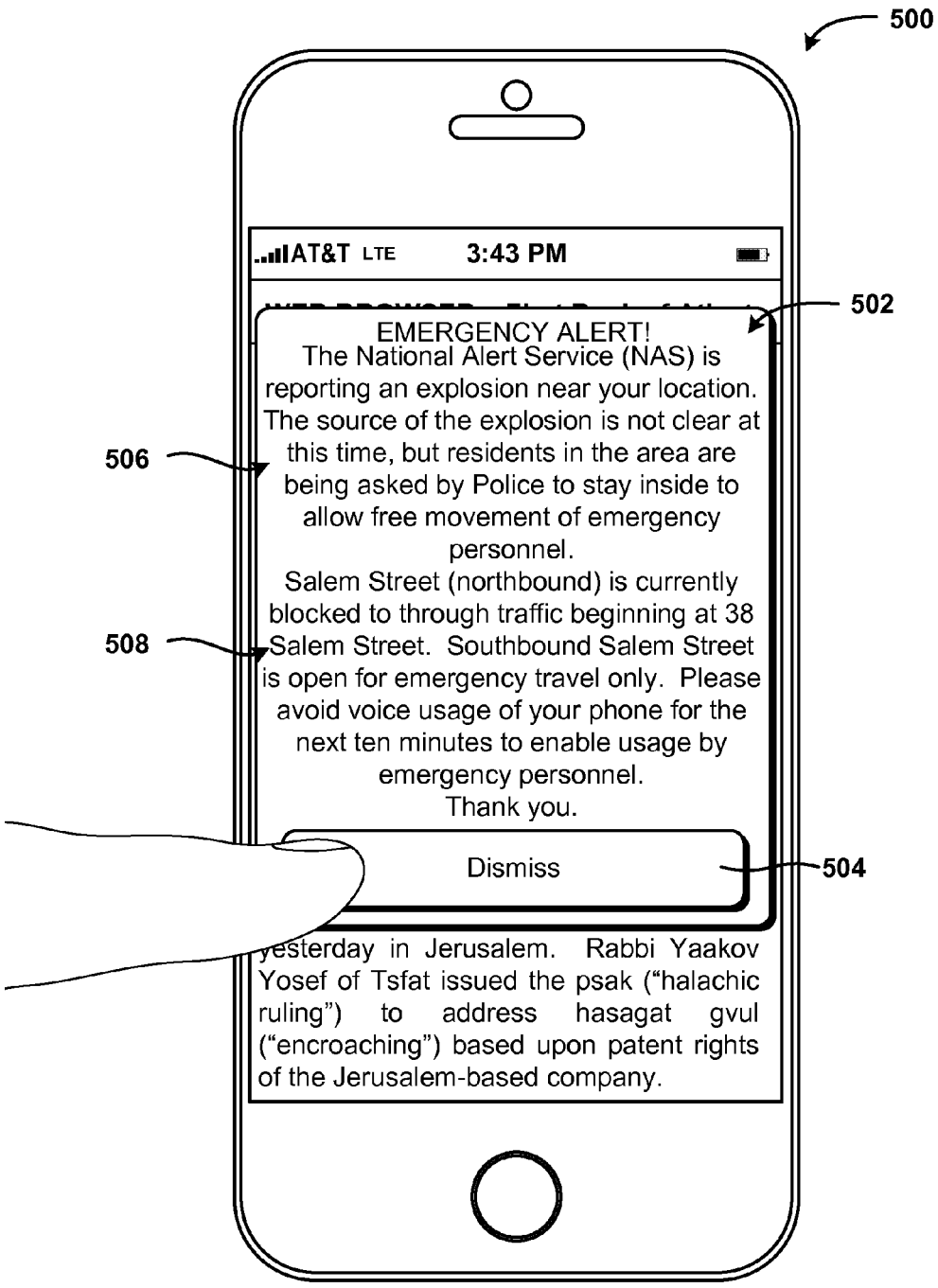
500
AT&T LTE
3:43 PM
502
EMERGENCY ALERT!
The National Alert Service (NAS) is reporting an explosion near your location. The source of the explosion is not clear at this time, but residents in the area are being asked by Police to stay inside to allow free movement of emergency personnel.
Salem Street (northbound) is currently blocked to through traffic beginning at 38 Salem Street. Southbound Salem Street is open for emergency travel only. Please avoid voice usage of your phone for the next ten minutes to enable usage by emergency personnel.
Thank you.
506
508
Dismiss
504
yesterday in Jerusalem. Rabbi Yaakov Yosef of Tsfat issued the psak ("halachic ruling") to address hasagat gvul ("encroaching") based upon patent rights of the Jerusalem-based company.

FIG. 5

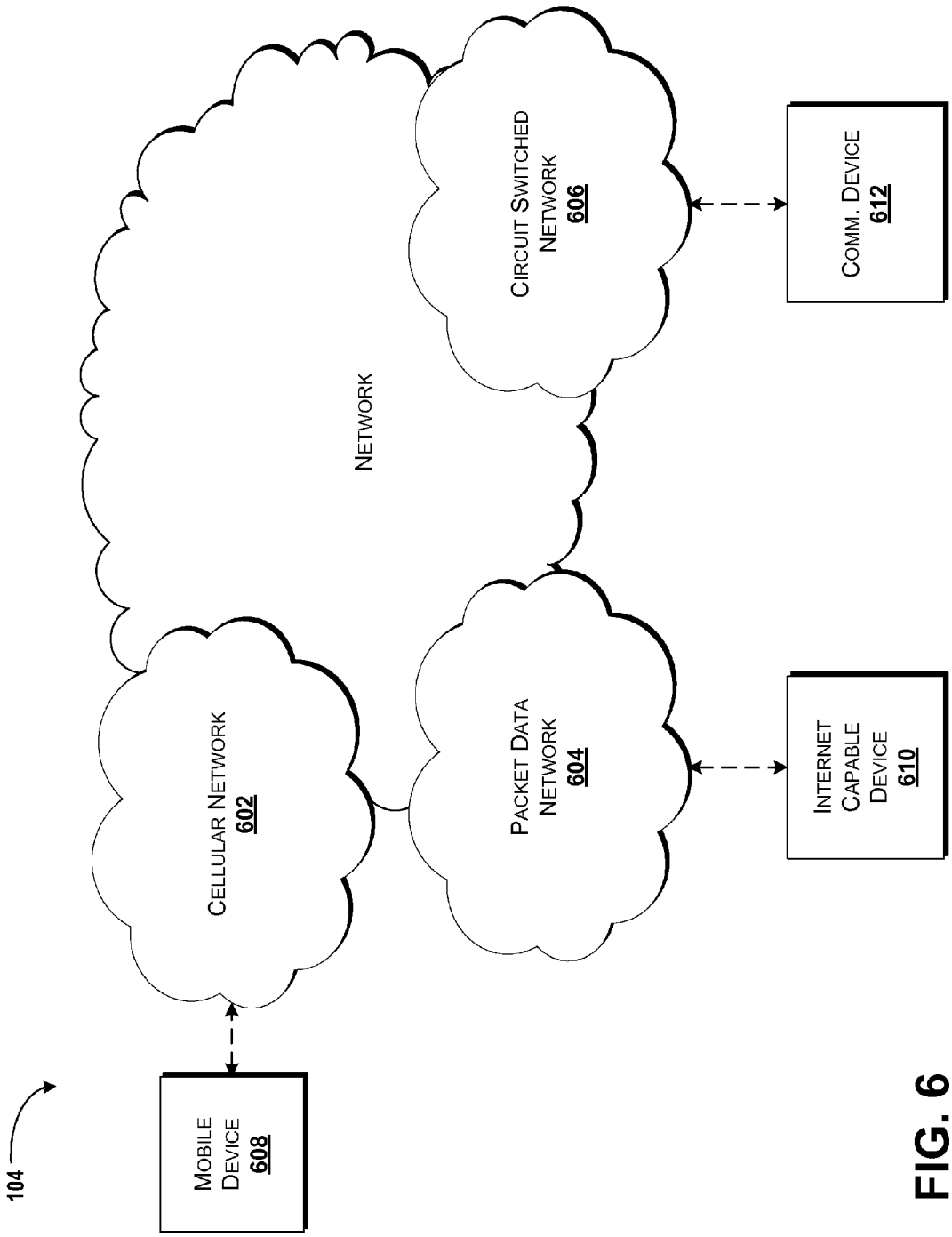
104
MOBILE DEVICE 608
CELLULAR NETWORK 602
PACKET DATA NETWORK 604
INTERNET CAPABLE DEVICE 610
NETWORK
CIRCUIT SWITCHED NETWORK 606
COMM. DEVICE 612

FIG. 6

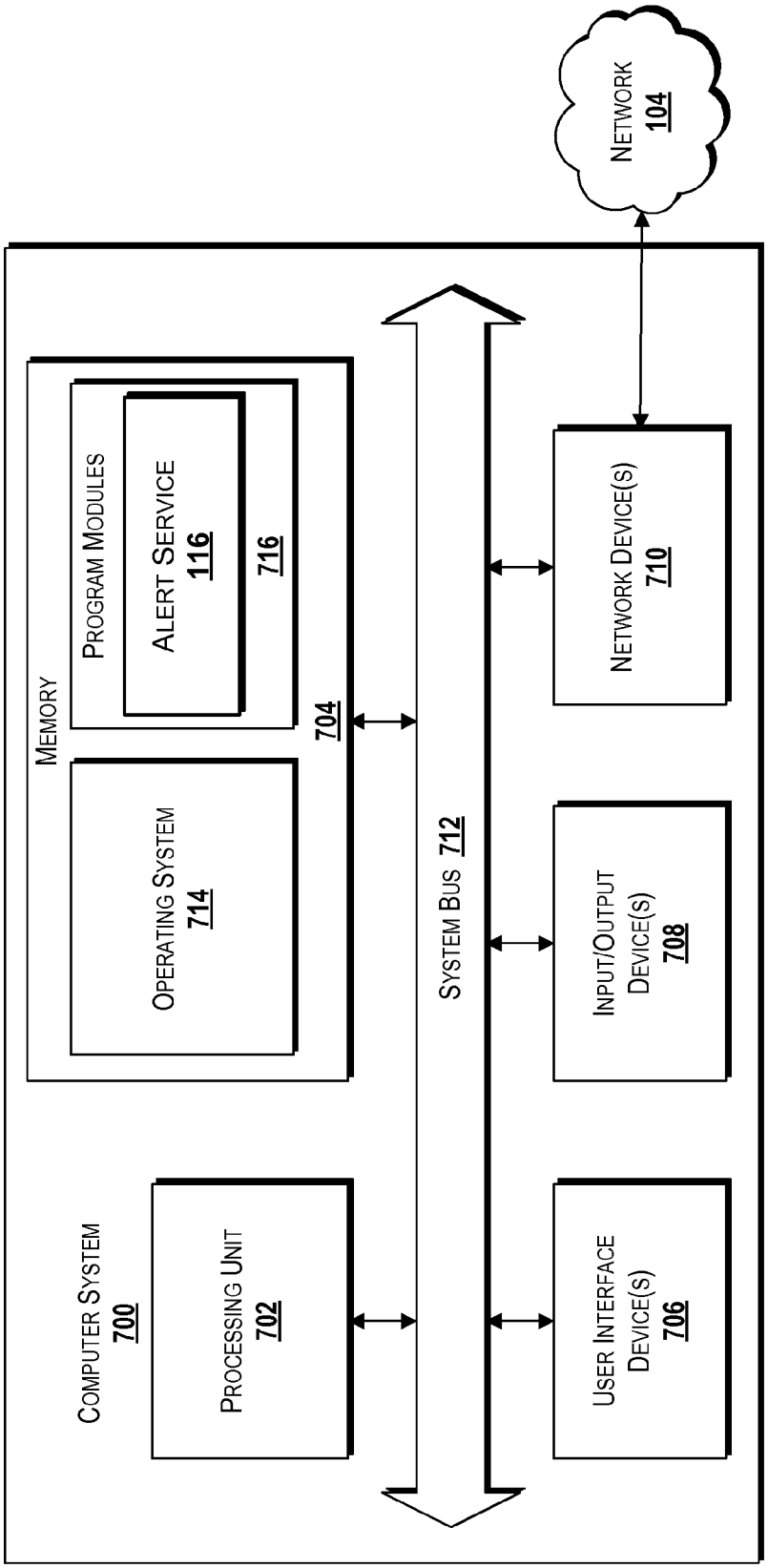
NETWORK
104
COMPUTER SYSTEM
700
PROCESSING UNIT
702
MEMORY
704
PROGRAM MODULES
716
ALERT SERVICE
116
OPERATING SYSTEM
714
SYSTEM BUS 712
NETWORK DEVICE(S)
710
INPUT/OUTPUT
DEVICE(S)
708
USER INTERFACE
DEVICE(S)
706

FIG. 7

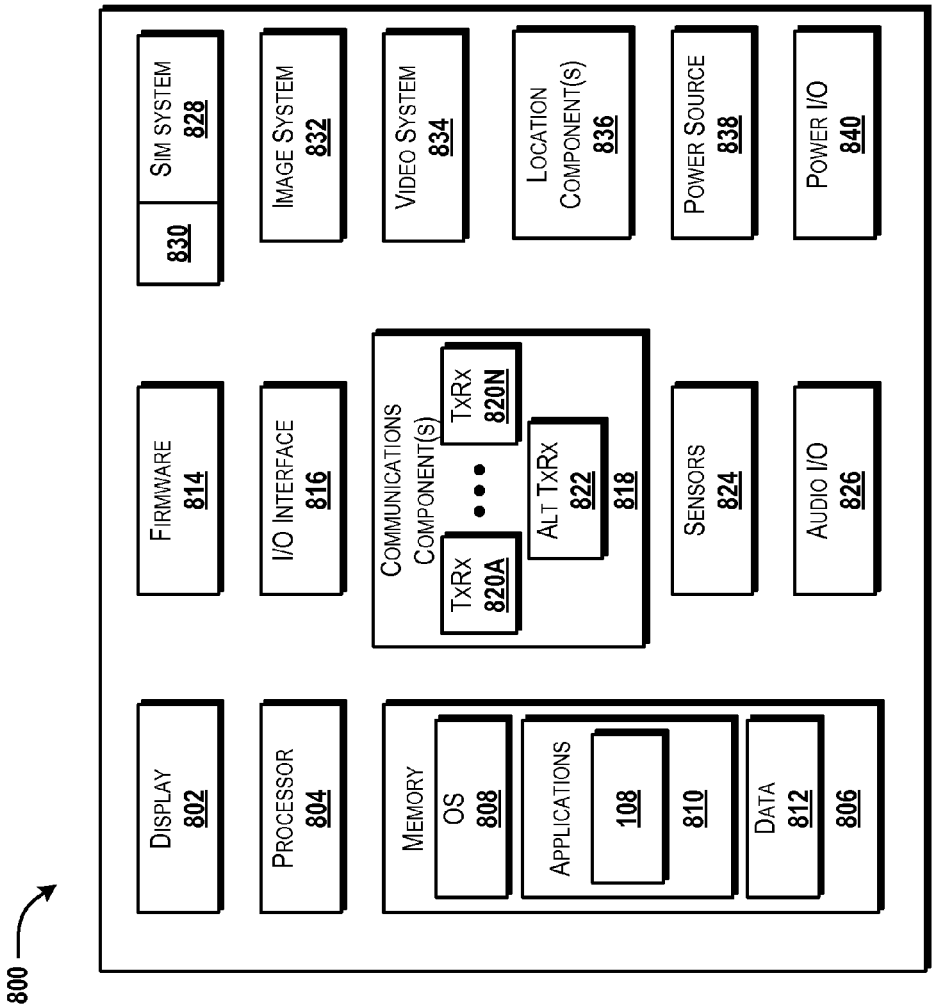
800
DISPLAY 802
PROCESSOR 804
MEMORY 806
OS 808
APPLICATIONS 810
108
DATA 812
FIRMWARE 814
I/O INTERFACE 816
COMMUNICATIONS COMPONENT(S) 818
TxRx 820A
TxRx 820N
ALT TxRx 822
SENSORS 824
AUDIO I/O 826
SIM SYSTEM 828
830
IMAGE SYSTEM 832
VIDEO SYSTEM 834
LOCATION COMPONENT(S) 836
POWER SOURCE 838
POWER I/O 840

FIG. 8

EFFECTIVE BROADCASTING OF EMERGENCY MESSAGES

BACKGROUND

In recent years, the usage of mobile computing devices and mobile communication devices has increased in terms of numbers of users and in terms of frequency of use. Furthermore, some consumers today have migrated or upgraded from using feature phones that may support only voice calls and/or text messaging functions to using smart phones that may use one or more data connections and/or one or more voice connections to provide users with various functions such as text messaging, email access, video calling functions, Internet calling features, mapping and/or navigation capabilities, camera and/or video features, application functions, web access, voice calls, combinations thereof, or the like.

With the increased ownership and use of mobile communication devices and mobile computing devices, the usage of various network resources has increased drastically. In particular, some modern mobile device users may access data networks to perform various tasks using web applications and/or stand-alone applications executed by the mobile devices. In response to the increased demand for services, some network providers have increased capacity for data communications and voice communications to support the increasing numbers and usage frequencies associated with these and other devices.

When emergencies occur, consumers may use smartphones and/or other mobile computing devices to respond to or deal with the emergencies. For example, users may use the smartphones or other computing devices to create social networking updates regarding the emergency conditions, to capture and/or share photos or videos relating to the emergency conditions, to receive and/or place phone calls relating to the emergency conditions, to receive and/or send text messages or emails relating to the emergencies, and/or may use the devices for other reasons. When emergency personnel are responding or reacting to the emergency conditions, the use of limited network resources by consumers may prevent emergency communications with a relatively higher priority from being successfully made or completed.

SUMMARY

The present disclosure is directed to effective broadcasting of emergency messages. An alert service can be operated as a virtualized service by executing an alert service or other application on a computing device such as a server computer. The alert service can be configured to obtain an indication of an emergency as implicit or explicit data. In some embodiments, the alert service can be configured to receive an emergency indicator from a source. The source can include, for example, social networking or messaging services; traffic, weather, or emergency alert systems or devices; residential, commercial, governmental, or other alarm systems or services; other monitoring systems, devices, services, networks, or the like; combinations thereof; or the like.

The alert service can be configured to determine a venue, geographic area, geographic location, and/or other location ("affected area") that is affected by an emergency condition associated with the emergency indicator. The alert service can be configured to identify the affected area based upon implicit or explicit data included in the emergency indicator and/or based upon other considerations. In some embodiments, the alert service can be configured to query one or more devices or networks to determine the affected area and in some embodiments, the alert service can identify the affected area based upon data included in the emergency indicator.

The alert service also can be configured to identify one or more devices at or near the affected area. In some embodiments, the alert service can be configured to communicate with various devices configured to execute an alert application. For example, the alert application can be configured to cause a device executing the alert application to periodically report a geographic location to the alert service and/or to respond to queries for location information and/or operational data with the location information. In some other embodiments, the alert service can access location servers, location registers, and/or other devices, systems, networks, and/or data structures to identify one or more devices at or near an affected area.

The alert service can be configured to obtain, from one or more devices located at or near the affected area, operational data. The operational data can include, in some embodiments, various data that describe or indicate operating characteristics of the one or more devices. In some embodiments, the operational data can include location information such as geographic location information obtained using a location device of the one or more devices, a battery status indicator that indicates a current battery level and/or expected life of a battery of the one or more devices, and a WiFi status indicator that indicates a current status and/or availability of a WiFi transmitter, receiver, or transceiver of the one or more devices. Because the operational data can include additional and/or alternative information or indicators, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

Based upon the operational data and/or aspects of the emergency condition determined by the alert service, the alert service can identify a device that is to broadcast an alert to the other devices located at or near the affected area. In some embodiments, for example, the alert service can select the device based upon the location, the battery status, and/or the WiFi status of the various devices. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The alert service can generate an alert trigger that includes an indication of the emergency condition, instructions for responding to the emergency condition, data indicating an area, region, or location affected by the emergency condition, instructions for broadcasting an alert to other devices at or near the affected area, and/or other information. The alert service can transmit the alert trigger to the device and the device can generate and broadcast an alert to the other devices to inform the other devices about the emergency condition.

In some embodiments, the device can broadcast the alert to the other devices by activating a WiFi transmitter or transceiver at the device and broadcasting the alert using the WiFi transmitter or transceiver. According to various embodiments of the concepts and technologies described herein, the device activates the WiFi hardware and assigns a unique dedicated service set identifier ("SSID") that may be used only for emergency communications. In one contemplated embodiment, the device activates a WiFi hotspot at the device via which the alert is transmitted to other devices in, at, or near the affected area. Thus, some embodiments of the concepts and technologies described herein can be used to move broadcasting of emergency messages from a network to devices in an affected area, thereby freeing resources of the network for use by emergency responders and/or other personnel. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The devices can monitor wireless signals to detect activation of WiFi hardware associated with the dedicated SSID. When a communication associated with the dedicated SSID is detected, the devices can receive the alert and communicate information associated with the alert to a user or other entity. In one contemplated embodiment, the devices can present a user interface or user interface element to inform a user about the emergency and/or to inform the user or other entity regarding how to respond to the emergency. These and other aspects of the concepts and technologies described herein will be illustrated and described in more detail below.

According to one aspect of the concepts and technologies disclosed herein, a method is disclosed. The method can include receiving, at a processor that executes an alert service, an emergency indicator that indicates that an emergency condition exists. The processor can determine a geographic area affected by the emergency condition and identify two or more devices and a user device located at the geographic area. The processor can select the user device to broadcast an alert to the plurality of devices, and send, by the processor, an alert trigger to the user device. The alert trigger can cause the user device to activate a wireless hotspot at the user device. The wireless hotspot can be associated with a dedicated service set identifier. The alert trigger also can cause the user device to broadcast, via the wireless hotspot, an alert indicating the emergency condition.

In some embodiments, selecting the user device can include determining, for each of the plurality of devices and the user device, an ability to activate the wireless hotspot and a battery level, and selecting, based upon the ability and the battery level, the user device. In some embodiments, determining the ability to activate the wireless hotspot and the battery level can include obtaining, for each of the plurality of devices and the user device, operational data that can include location data, battery status information, and WiFi status information. The method also can include selecting, based upon the operational data, the user device. In some embodiments, the dedicated service set identifier can include a service set identifier used for emergency communications, and each of the plurality of devices can be configured to monitor wireless signals to detect activation of the wireless hotspot with the dedicated service set identifier.

In some embodiments, the emergency indicator can be received from a source. The source can include a social networking service. The emergency indicator can include an implicit indicator that the emergency condition exists, and the implicit indicator can be determined based upon analysis of two or more social networking posts. In some embodiments, the emergency indicator can include an explicit indicator that the emergency condition exists.

In some embodiments, the source can include an emergency dispatcher, and the emergency indicator can include an explicit indicator that the emergency condition exists. In some embodiments, the alert can include a description of the emergency condition, an indication of the geographic area, and instructions for responding to the emergency condition. In some embodiments, the alert can include data for generating a user interface for presenting the description, the indication, and the instructions. In some embodiments, the user device can include a smart phone that executes an alert application. The user device can generate an alert in response to the alert trigger and broadcast the alert via the wireless hotspot.

According to another aspect of the concepts and technologies disclosed herein, a system is disclosed. The system can include a processor and a memory that stores computer-executable instructions that, when executed by the processor, cause the processor to perform operations. The operations can include receiving an emergency indicator that indicates that an emergency condition exists, determining a geographic area associated with the emergency condition, identifying two or more devices and a user device located at the geographic area, selecting the user device to broadcast an alert to the plurality of devices, and sending an alert trigger to the user device. The alert trigger can cause the user device to activate a wireless hotspot at the user device. The wireless hotspot can be associated with a dedicated service set identifier. The alert trigger also can cause the user device to broadcast, via the wireless hotspot, an alert indicating the emergency condition.

In some embodiments, the system also can include a source. The emergency indicator can be received from the source, and the source can include a server computer that can host a social networking service. In some embodiments, the source can include a computer device associated with an emergency dispatcher. In some embodiments, selecting the user device can include determining, for each of the plurality of devices and the user device, an ability to activate the wireless hotspot and a battery level, and selecting, based upon the ability and the battery level, the user device.

In some embodiments, determining the ability to activate the wireless hotspot and the battery level can include obtaining, for each of the plurality of devices and the user device, operational data can include location data, battery status information, and WiFi status information, and selecting, based upon the operational data, the user device. In some embodiments, the dedicated service set identifier can include a service set identifier used for emergency communications, and each of the plurality of devices can monitor wireless signals to detect activation of the wireless hotspot with the dedicated service set identifier.

According to yet another aspect, a computer storage medium is disclosed. The computer storage medium can have computer-executable instructions stored thereon that, when executed by a processor, cause the processor to perform operations. The operations can include receiving an emergency indicator that indicates that an emergency condition exists, determining a geographic area associated with the emergency condition, identifying two or more devices and a user device located at the geographic area, selecting the user device to broadcast an alert to the plurality of devices, and sending an alert trigger to the user device. The alert trigger can cause the user device to activate a wireless hotspot at the user device. The wireless hotspot can be associated with a dedicated service set identifier. The alert trigger also can cause the user device to broadcast, via the wireless hotspot, an alert indicating the emergency condition.

In some embodiments, selecting the user device can include determining, for each of the plurality of devices and the user device, an ability to activate the wireless hotspot and a battery level, and selecting, based upon the ability and the battery level, the user device. In some embodiments, determining the ability to activate the wireless hotspot and the battery level can include obtaining, for each of the plurality of devices and the user device, operational data that can include location data, battery status information, and WiFi status information, and selecting, based upon the operational data, the user device. In some embodiments, the dedicated service set identifier can include a service set identifier used for emergency communications, and each of the plurality of devices can monitor wireless signals to detect activation of the wireless hotspot with the dedicated service set identifier.

Other systems, methods, and/or computer program products according to embodiments will be or become apparent to one with skill in the art upon review of the following drawings and detailed description. It is intended that all such additional

systems, methods, and/or computer program products be included within this description, be within the scope of this disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a system diagram illustrating an illustrative operating environment for the various embodiments disclosed herein.

FIG. **2** is a flow diagram showing aspects of a method for sending an alert trigger to a device, according to an illustrative embodiment.

FIG. **3** is a flow diagram showing aspects of a method for broadcasting an alert from a device, according to another illustrative embodiment.

FIG. **4** is a flow diagram showing aspects of a method for receiving a broadcast alert from a device, according to another illustrative embodiment.

FIG. **5** is a user interface drawing showing aspects of the concepts and technologies described herein for providing effective broadcasting emergency messages, according to an illustrative embodiment.

FIG. **6** schematically illustrates a network, according to an illustrative embodiment.

FIG. **7** is a block diagram illustrating an example computer system configured to provide effective broadcasting of emergency messages, according to some illustrative embodiments.

FIG. **8** is a block diagram illustrating an example mobile device configured to provide effective broadcasting of emergency messages, according to some illustrative embodiments.

DETAILED DESCRIPTION

The following detailed description is directed to effective broadcasting of emergency messages. As used herein, the phrase "effective broadcasting of emergency messages" can be used to refer to embodiments wherein a single message can be sent to a single device by a communications network, and the single device can be configured to alert other devices near the single device via a broadcast message or data. Thus, the broadcasting can be moved from a network such as a wireless telephone network to a local real or virtual network.

According to various embodiments of the concepts and technologies described herein, an alert service may be executed by a computer or server computer and can receive an emergency indicator. The emergency indicator may be received as explicit data and/or can be received as other types of data that are determined by the alert service, via analysis of explicit or implicit data included in the data, to include emergency indicators. In one contemplated embodiment, the emergency indicator can be determined to exist based upon analysis of one or more social networking updates or messages. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The alert service can determine a geographic area or location affected by an emergency condition indicated by the emergency indicator. The alert service also can identify multiple devices in the affected area. If only one device is located at or near the affected area, the alert service can send a single message to the one device with an alert relating to the emergency condition. If multiple devices exist within the affected area, the alert service can obtain operational data that indicates at least a location of the device, a battery status of the device, and a WiFi transmitter or transceiver status of the device. The alert service can analyze the operational data to select a device to broadcast an alert to the other devices at or near the affected area.

The alert service can generate an alert trigger and send the alert trigger to the device selected to broadcast the alert. The alert trigger can include an indication relating to the emergency condition, instructions for responding to the emergency, data indicating an area affected by the emergency condition, combinations thereof, or the like. The device can receive the alert trigger and broadcast an alert to other devices in a vicinity of the device. According to various embodiments, the device can activate a WiFi transmitter or transceiver to broadcast the alert to devices at or near the affected area. In various embodiments, the device can activate or create a WiFi hotspot or access point that is associated with a dedicated unique service set identifier and broadcast the alert using the WiFi hotspot or access point.

Other devices at or near the affected area can monitor wireless signals for activation of a wireless transmitter or transceiver associated with the dedicated service set identifier. If a wireless transmitter or transceiver associated with the dedicated service set identifier is detected, the devices can obtain the alert when the alert is broadcast via the WiFi hotspot or access point. Thus, embodiments of the concepts and technologies described herein can support propagation of alerts or messages to multiple devices while using network resources only for a single message to a single device. Thus, some embodiments of the concepts and technologies described herein can reduce network usage for broadcasting emergency messages. This, in turn, can be used to free network resources for emergency responders and/or other personnel for various reasons.

While the subject matter described herein is presented in the general context of program modules that execute in conjunction with the execution of an operating system and application programs on a computer system, those skilled in the art will recognize that other implementations may be performed in combination with other types of program modules. Generally, program modules include routines, programs, components, data structures, and other types of structures that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the subject matter described herein may be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable consumer electronics, minicomputers, mainframe computers, and the like.

Referring now to FIG. **1**, aspects of an operating environment **100** for various embodiments of the concepts and technologies disclosed herein for providing effective broadcasting of emergency messages will be described, according to an illustrative embodiment. The operating environment **100** shown in FIG. **1** includes a user device **102** operating in communication with a communications network ("network") **104**. Various aspects of the network **104** will be illustrated and described in detail below, particularly with reference to FIG. **6**.

According to various embodiments, the functionality of the user device **102** may be provided by one or more smartphones, feature phones, personal digital assistants ("PDAs"), tablet computers, smart watches, mobile media devices, other computing devices, combinations thereof, or the like. In some other embodiments, the functionality of the user device **102** may be provided by one or more laptop computers, other computing systems, or the like. For purposes of describing the concepts and technologies disclosed herein, the user device **102** is described herein as a mobile computing device such as

a smartphone. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way.

The user device **102** can execute an operating system **106**, one or more application programs (not shown in FIG. **1**), and an alert application **108**. The operating system **106** can include an executable program that controls the operation of the user device **102**. The application programs can include executable programs configured to execute on top of the operating system **106** to provide various functions. In some embodiments, the application programs can include, but are not limited to, web browsers, web applications, mail applications, native applications, media applications, camera and/or video applications, combinations thereof, or the like. Because various embodiments of application programs are generally known, the application programs are not described in additional detail herein.

The alert application **108** can include an executable program configured to execute on top of the operating system **106** to provide various functions described herein for providing effective broadcasting of emergency messages. In particular, the alert application **108** can be configured to broadcast an alert **110** to devices **112**A-N (hereinafter collectively and/or generically referred to as "devices **112**"). According to various embodiments of the concepts and technologies described herein, the devices **112** are located in a proximity of the user device **102**.

In particular, the proximity of the user device **102** can be defined in various ways. In some embodiments, the proximity of the user device **102** can be defined as a broadcast range of the user device **102**. In particular, in various embodiments in which the user device **102** broadcasts using IEEE 802.11x signals ("WiFi signals"), the proximity of the user device **102** can be from about fifty feet up to about three hundred feet, depending upon ambient temperature, ambient radio signal usage, whether the user device **102** is indoors or outdoors, the orientation of the user device **102** and/or a WiFi transceiver thereof, combinations thereof, or the like. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The alert application **108** also can be configured to provide the functionality described herein for generating and reporting operational data **114**. According to various embodiments, the alert application **108** can be configured to communicate with an alert service **116** that is hosted and/or executed by a computing system such as, for example, a server computer **118**. The functionality of the server computer **118** can be provided by one or more real or virtual computing resources. The functionality of the server computer **118** additionally or alternatively can be provided by multiple distributed computing resources, if desired. As such, the illustrated embodiment showing a single server computer **118** is illustrative of only one contemplated embodiment and therefore should not be construed as being limiting in any way.

According to various embodiments of the concepts and technologies described herein, the alert service **116** can be executed by the server computer **118** and can be configured to obtain the operational data **114** from the user device **102** and/or the devices **112**. The operational data **114** can be used by the alert service **116** to identify a candidate device to broadcast the alert **110** in an emergency condition or situation, as will be explained in more detail below. As will be explained in more detail below, the operational data **114** can be obtained on request by the alert service **116** and/or reported by the user device **102** and/or the devices **112** periodically.

The alert service **116** also can be configured to generate an alert trigger **120**. The alert trigger **120** can indicate that an emergency condition exists. The alert trigger **120** also can prompt a device such as the user device **102** and/or one or more of the devices **112** to generate the alert **110** and/or to broadcast the alert **110** to other devices in a defined proximity of the broadcasting entity. According to various embodiments, the user device **102** and the devices **112** are located within a defined area or region ("location") **122**. The location **122** can include a building, a venue, an outdoors area, a region, or the like. According to various embodiments of the concepts and technologies described herein, the location **122** can correspond to a wireless range of a wireless transceiver of the user device **102**. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

As will be explained in more detail below, the user device **102** can enter or otherwise be located at the location **122**. The alert service **116** can detect an emergency condition. The emergency condition can be at or near the location **122**, or can be determined to affect users or other entities at or near the location **122**. According to various embodiments, the emergency at the location **122** may be detected by the alert service **116** via monitoring of various information sources such as social networking services, news services, emergency and/or emergency dispatch services, combinations thereof, or the like. In some embodiments, the alert service **116** can be configured to monitor social networking services to identifying trending or popular topics relating to a particular location. For example, if one or more real time messages or social networking posts include a reference to an emergency condition at a particular venue, the alert service **116** can be configured to detect these messages and/or posts to identify the emergency and the location. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

According to various embodiments, the alert service **116** can be configured to receive an emergency indicator **124**. The emergency indicator **124** can indicate that the emergency condition exists. The emergency indicator **124** can include an explicit indicator received from a source **126** such as, for example, an emergency reporting system, an emergency dispatcher, an alarm service, a news service, combinations thereof, or the like. The emergency indicator **124** also can include implicitly generated emergency indicators. For example, the emergency indicator **124** can be generated by the alert service **116** or provided to the alert service **116** by the source **126** based upon social networking information or trends, posts, or real time messages; news information; traffic information; weather information; combinations thereof; or the like. Because the alert service **116** can become aware of an emergency condition in any number of manners, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

At some point in time, a device or user can enter or otherwise be located at or near the location **122**. At some other point in time before, during, or after the point in time at which the device or user enters or otherwise is located at the location **122**, the alert service **116** can receive an emergency indicator **124**. Upon receiving the emergency indicator **124**, the alert service **116** can be configured to identify a type of emergency indicated by the emergency indicator and a geographic location that is affected by or near an area affected by the emergency condition. In FIG. **1**, the area affected by the emergency condition can correspond to the location **122**. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The alert service **116** can identify a number of users or devices located at or near the location **122**. According to some

embodiments, the alert service **116** can be configured to communicate with various network elements such as, for example, a home location register ("HLR") or visitor location register ("VLR") to locate users or other entities in, at, or near an affected area such as the location **122**. In some other embodiments, the alert service **116** can be configured to communicate with a location server or other network element to identify users or other entities in, at, or near an affected area such as the location **122**. According to still other embodiments, the alert service **116** can query network elements such as mobile switching centers ("MSCs"), base transceiver stations ("BTSs"), combinations or equivalents thereof, or the like to identify devices connected to particular towers, sectors, or cells, and to query those devices or other location elements of the network for a more accurate indication of location.

According to some embodiments, the alert service **116** identifies devices in, at, or near the location **122** in any of a variety of manners and requests or pulls operational data **114** from the devices in, at, or near the location **122**. The operational data **114** can include location information that represents a geographic location of the device that generated the operational data **114**, a battery life indicator that indicates a current battery level associated with the device that generated the operational data **114**, a WiFi status indicator that indicates an operating status and/or capabilities of a WiFi transceiver associated with the device that generated the operational data **114**, combinations thereof, or the like.

According to one embodiment of the concepts and technologies described herein, the operational data **114** includes at least the battery life indicator and the WiFi status indicator. According to another embodiment of the concepts and technologies described herein, the operational data **114** includes at least the location information, the battery life indicator, and the WiFi status indicator. It should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

As will be explained in more detail below, the alert service **116** can analyze the operational data **114** and/or the emergency indicator **124** to identify devices or entities in, at, or near the location **122**. The alert service **116** also can determine how to effectively broadcast an alert to devices in, at, or near the location **122**. As used herein, the phrase "effectively broadcast" with respect to an alert or other emergency message can be used to refer to a network device or system propagating an alert to multiple devices while using minimal network resources. In particular, some embodiments of "effectively broadcasting an emergency message" to multiple devices includes an alert service **116** sending a single alert trigger **120** to a user device **102**, and the user device **102** propagating an alert **110** based upon the alert trigger **120** to devices **112** in, at, or near a proximity of the user device **102**. Thus, the devices **112** and the user device **102** can be made aware of an emergency condition without using additional network resources after the initial alert trigger **120** is sent to the user device **102**. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

In one example embodiment of the concepts and technologies described herein, the alert service **116** can receive an emergency indicator **124** that indicates that an emergency condition exists at the location **122**. As explained above, the emergency indicator **124** can be received from a source **126** that generates the emergency indicator **124** based upon explicit emergency indicators such as 911 calls, alarm reports, emergency dispatch systems, or the like, or implicitly generated based upon analysis of various data such as social networking data, news, or the like.

The alert service **116** can identify an area affected by the emergency condition such as, for example, the location **122**. The identification of the area affected by the emergency condition can be completed based upon the emergency indicator **124**, or analysis of the emergency indicator **124**. For example, if the emergency indicator **124** indicates a fire at a particular building, the alert service **116** can determine that the affected area corresponds to the building, to a city block at which the building is located, to a strip mall or neighborhood in which the building is located, combinations thereof, or the like. Similarly, if the emergency condition corresponds to a weather event or other event (e.g., presidential motorcade, road closure, or the like) that may affect a wide region or area, the alert service **116** can determine that the affected area corresponds to a neighborhood, a city or town, a county, state, or even region of the country. It should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

Based upon the affected location, the alert service **116** can identify users, devices, or other entities within the affected location. In the embodiment shown in FIG. **1**, the alert service **116** can identify the user device **102** and the devices **112** that are located within the location **122**. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The alert service **116** also can query the devices or other entities within the affected location to determine which of the devices or other entities is to be used to propagate an alert to other devices in, at, or near the affected area. According to some embodiments of the concepts and technologies described herein, the alert service **116** can obtain operational data **114** from the user device **102** and/or the devices **112**. In some embodiments, the alert service **116** requests the operational data **114** from the user device **102** and/or the devices **112**, while in some other embodiments, the user device **102** and/or the devices **112** can be configured to report the operational data **114** to the alert service **116** according to schedules, according to intervals, and/or according to other considerations. As such, it should be understood that the alert service **116** can obtain the operational data **114** with or without requesting the operational data **114** from the user device **102** and/or the devices **112**.

As explained above, the operational data **114** can indicate, for each entity or device that generated the operational data **114**, a location, battery level, WiFi status, or the like. In some embodiments, for example, the operational data **114** can indicate current data usage, current voice usage, data and/or voice capabilities, or the like. The alert service **116** can analyze the operational data **114** to select a device or entity that will propagate (e.g., via broadcasting) an alert **110** to other devices in, at, or near the location **122** and/or in, at, or near a proximity of the device or entity.

According to some embodiments, the alert service **116** can select a device or entity that is to broadcast the alert **110** based upon a location of the device or entity relative to other devices or entities within the location **122** and/or within a proximity of the device or entity. For example, the alert service **116** can be configured to select a device that is centrally located within the location **122** based upon an assumption that a centrally located device or entity may be able to broadcast the alert **110** to more devices **112** than a non-centrally-located device or entity. Because a centrally-located device may not be desired in some circumstances, for example if the devices at the location **122** are not distributed through the location **122**, and because other considerations may be used to select the device

that is to broadcast the alert **110**, it should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

According to some embodiments, the alert service **116** can select a device or entity that is to broadcast the alert **110** based upon a battery level of the device or entity. For example, the alert service **116** can be configured to select a device that has a highest amount of available battery relative to other devices or entities located within the location **122** based upon an assumption that a device or entity having the most battery life will be able to broadcast the alert **110** for longer and/or to more devices **112** than a device or entity having comparatively less battery power. Because this assumption may be incorrect in some circumstances and/or because other considerations may be used to select the device that is to broadcast the alert **110**, it should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

According to some embodiments, the alert service **116** can select a device or entity that is to broadcast the alert **110** based upon a WiFi status associated with the device or entity. For example, the alert service **116** can be configured to select a device that has an enabled WiFi transceiver that is not in use. This selection may be based upon an assumption that a device or entity having a WiFi transceiver that is enabled and not in use will be more quickly able to activate and use the WiFi transceiver than a device that has a disabled WiFi transceiver and/or an enabled and in-use WiFi transceiver. Because this assumption may be incorrect in some circumstances and/or because other assumptions may drive selection of the device that is to broadcast the alert **110**, it should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

Upon identifying the device or entity that is to broadcast the alert **110**, in the illustrated example the user device **102**, the alert service **116** can generate an alert trigger **120**. The alert trigger **120** can indicate the emergency condition and/or instructions for dealing with the emergency condition. The alert service **116** also can transmit, or request other network elements to transmit, the alert trigger **120** to the user device **102**. According to various embodiments of the concepts and technologies described herein, the alert trigger **120** can be transmitted to the user device **102** as a short message service ("SMS") message, a multimedia message service ("MMS") message, a special purpose short message, a message sent over a control channel such as a broadcast control channel ("BCCH") or other control channel, a push notification, combinations thereof, or the like. Because the alert trigger **120** can be provided to the user device in a variety of manners, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

The user device **102** can be configured to receive the alert trigger **120**. According to some embodiments of the concepts and technologies described herein, the user device **102** can execute the alert application **108** to receive and/or interpret the alert trigger **120**. According to various embodiments, the alert application **108** can analyze the alert trigger **120** and generate the alert **110** based upon the alert trigger **120**. The alert **110** can indicate the emergency condition and/or provide information for responding to the emergency condition. In some embodiments, the alert **110** can include an instruction that, when interpreted by a device that receives the alert **110**, causes the device to cease radio communications via a network such as a cellular network. As such, the alert **110** can be used, in some embodiments, to free bandwidth and/or resources associated with a network for use by government and/or emergency personnel. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The alert application **108** also can be configured to activate a WiFi transceiver (shown in FIG. **8**) of the user device **102**. According to some embodiments of the concepts and technologies described herein, the alert **110** is broadcast by the user device **102** using the WiFi transceiver. The alert application **108** can be configured to create and/or to activate the WiFi transceiver and to assign, to a WiFi hotspot or access point created or activated by the alert application **108**, a unique and dedicated service set identifier ("SSID"). In some embodiments, the unique dedicated SSID can be used only to broadcast the alert **110**, though this is not necessarily the case. Furthermore, the devices **112** can be configured to monitor wireless signals at or near the devices **112** at all times and/or at selected times to determine if wireless resources associated with the unique dedicated SSID have been activated and/or are present.

As such, embodiments of the concepts and technologies described herein can be used to provide an emergency broadcast system that relies upon one or more WiFi transceivers of devices to propagate alerts such as the alert **110**. Thus, embodiments of the concepts and technologies described herein can allow networks and network operators to conserve network bandwidth and/or network resources for use by government, emergency, and/or other personnel instead of using resources to propagate or broadcast alerts to devices or entities in areas affected by an emergency condition. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The devices **112** can be configured to monitor for communications via a WiFi hotspot, access point, peer-to-peer connection, or other WiFi network connection having the unique dedicated SSID. In some examples, the devices **112** can monitor for a WiFi hotspot or access point that has or is associated with the unique dedicated SSID. This example is described herein for purposes of illustration. Because other types of WiFi connections or networks can be used, it should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

Upon recognizing activation of the WiFi hotspot or access point having the unique dedicated SSID, the devices **112** can receive the alert **110** via the WiFi hotspot or access point. In some embodiments, the user device **102** can be configured, via the alert application **108**, to determine if all devices **112** have received the alert **110** and, if not, to continue broadcasting the alert **110** over the WiFi hotspot or access point. The identification of the devices **112** by the user device **102** can be based upon the alert trigger **120**, which can include in some embodiments identification of the number of devices in, at, or near the location **122** and/or identifying information for each of the devices. It should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way. Additional aspects of the concepts and technologies described herein are set forth below, particularly with reference to FIGS. **2-8**.

FIG. **1** illustrates one user device **102**, one network **104**, three devices **112**, one server computer **118**, and one location **122**. It should be understood, however, that various implementations of the operating environment **100** include zero, one, or more than one user device **102**, zero, one, or more than one network **104**, zero, less than three, three, or more than three devices **112**, zero, one, or more than one server computer **118**, and/or zero, one, or more than one location **122**. As

such, the illustrated embodiment should be understood as being illustrative, and should not be construed as being limiting in any way.

Turning now to FIG. **2**, aspects of a method **200** for sending an alert trigger to a device will be described in detail, according to an illustrative embodiment. It should be understood that the operations of the methods disclosed herein are not necessarily presented in any particular order and that performance of some or all of the operations in an alternative order(s) is possible and is contemplated. The operations have been presented in the demonstrated order for ease of description and illustration. Operations may be added, omitted, and/or performed simultaneously, without departing from the scope of the concepts and technologies disclosed herein.

It also should be understood that the methods disclosed herein can be ended at any time and need not be performed in its entirety. Some or all operations of the methods, and/or substantially equivalent operations, can be performed by execution of computer-readable instructions included on a computer storage media, as defined herein. The term "computer-readable instructions," and variants thereof, as used herein, is used expansively to include routines, applications, application modules, program modules, programs, components, data structures, algorithms, and the like. Computer-readable instructions can be implemented on various system configurations including single-processor or multiprocessor systems, minicomputers, mainframe computers, personal computers, hand-held computing devices, microprocessor-based, programmable consumer electronics, combinations thereof, and the like.

Thus, it should be appreciated that the logical operations described herein are implemented (1) as a sequence of computer implemented acts or program modules running on a computing system and/or (2) as interconnected machine logic circuits or circuit modules within the computing system. The implementation is a matter of choice dependent on the performance and other requirements of the computing system. Accordingly, the logical operations described herein are referred to variously as states, operations, structural devices, acts, or modules. These states, operations, structural devices, acts, and modules may be implemented in software, in firmware, in special purpose digital logic, and any combination thereof. As used herein, the phrase "cause a processor to perform operations" and variants thereof is used to refer to causing a processor of a computing system or device, such as the user device **102**, the devices **112**, or the server computer **118**, to perform one or more operations and/or causing the processor to direct other components of the computing system or device to perform one or more of the operations.

For purposes of illustrating and describing the concepts of the present disclosure, the method **200** will be described as being performed by the server computer **118** via execution of one or more software modules such as, for example, the alert service **116**. It should be understood that additional and/or alternative devices and/or network nodes can provide the functionality described herein via execution of one or more modules, applications, and/or other software including, but not limited to, the alert service **116**. Thus, the illustrated embodiments are illustrative, and should not be viewed as being limiting in any way.

The method **200** begins at operation **202**. At operation **202**, the server computer **118** detects an emergency condition. The server computer **118** can detect an emergency condition, for example, by receiving an emergency indicator **124** from a source **126**. Of course, it should be understood that the server computer **118** can receive multiple emergency indicators from multiple sources **126**, in some embodiments.

As explained above, the emergency indicator **124** can include an emergency indicator generated by an emergency dispatcher, an emergency indicator generated by a traffic monitor, an emergency indicator generated by a weather monitor or alert system, an emergency indicator generated by a police or other emergency personnel system, combinations thereof, or the like. The emergency indicator **124** also can include, for example, an emergency indicator generated by a device that monitors news, social networking, weather, alarm, and/or traffic systems to detect changes or trends that may indicate an emergency condition. Because the emergency condition can be detected in additional and/or alternative ways, some of which are explained in detail herein, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

From operation **202**, the method **200** proceeds to operation **204**. At operation **204**, the server computer **118** identifies an affected area for the emergency condition. In some embodiments, the affected area for the emergency condition can be defined by the emergency indicator **124**. For example, if the emergency condition corresponds to a weather condition, the emergency indicator **124**can indicate a neighborhood, ZIP code, city, county, or the like, that is affected by the weather condition. Thus, in some embodiments, operation **204** can correspond to the server computer **118** extracting data indicating the affected area from the emergency indicator **124**.

In some other embodiments, the server computer **118** can determine the affected area based upon implicit information. For example, the server computer **118** may identify the emergency condition based upon social networking posts or messages, and therefore can identify the affected area based upon implicit analysis of the social networking posts or messages. For example, the server computer **118** can analyze locations associated with the social networking posts or messages and/or locations referenced by the social networking posts or messages to identify the affected area.

In still further embodiments, the server computer **118** can receive data from various sources to identify the affected area. For example, emergency dispatchers, traffic management systems, cellular telephone data, combinations thereof, or the like can be used to identify areas affected by an emergency condition. Because the affected area can be identified in additional and/or alternative ways, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

From operation **204**, the method **200** proceeds to operation **206**. At operation **206**, the server computer **118** can identify devices at the affected area. The server computer **118** can identify the devices within, at, or near the affected area. In some embodiments, the server computer **118** can query a location system (e.g., a location server or the like) to request identities of devices within the affected area. The server computer **118** also can be configured to query various other systems, nodes, or devices such as, for example, a home location register ("HLR") or visitor location register ("VLR") associated with an cellular network to determine locations of devices and/or to identify one or more devices at or near the affected area. Because the server computer **118** can identify the devices in, at, or near the affected area in a variety of ways, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

From operation **206**, the method **200** proceeds to operation **208**. At operation **208**, the server computer **118** can obtain operational data **114** for the devices identified in operation **206**. In the context of the embodiment shown in FIG. **1**, the server computer **118** can obtain operational data **114** from the

user device **102** and the devices **112**. In some embodiments, the server computer **118** can query the devices identified in operation **206** for the operational data **114**. In some other embodiments, the server computer **118** can obtain the operational data **114** from the devices identified in operation **206** without explicitly requesting the data from those devices.

For example, the devices identified in operation **206** can be configured to report the operational data **114** to the server computer **118** periodically, according to schedules, and/or upon various other triggering events such as, for example, arrival at or entry to the location **122**, an indication that an emergency condition exists at or near the location **122**, and/or based upon other triggering events. Because the server computer **118** can obtain the operational data **114** in additional and/or alternative ways, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

From operation **208**, the method **200** proceeds to operation **210**. At operation **210**, the server computer **118** can select a device to receive an alert trigger **120**. In the context of the embodiment illustrated in FIG. **1**, the server computer **118** may determine that the user device **102** is to receive the alert trigger **120**. For purposes of illustrating and describing the concepts and technologies described herein, the method **200** will be described with reference to an embodiment in which the user device **102** is selected by the server computer **118** for receiving the alert trigger **120**. Because the server computer **118** can identify and/or select various devices to receive the alert trigger **120**, including but not limited to the user device **102** and/or any of the devices **112** shown in FIG. **1**, it should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

According to various embodiments of the concepts and technologies described herein, the server computer **118** can select the device that is to receive the alert trigger **120** based upon the operational data **114**, locations determined for one or more devices at an affected area, and/or other considerations. As explained above, the operational data **114** can include, but is not limited to, location data, battery status information, WiFi status information, and/or other information and/or data. As such, it can be appreciated that the server computer **118** can select the device to receive the alert trigger **120** based upon the location, battery status, WiFi status, and/or other status or information associated with the device selected. As explained above, various considerations may affect how these and/or other types of operational data **114** are used to select the device to receive the alert trigger **120**. Because the device to receive the alert trigger **120** can be selected in additional and/or alternative ways, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

From operation **210**, the method **200** proceeds to operation **212**. In operation **212**, the server computer **118** can send the alert trigger **120** to the device selected in operation **210**. Although not separately illustrated in FIG. **2**, the server computer **118** can generate the alert trigger **120**. The server computer **118** also can include, in the alert trigger **120**, instructions for generating the alert **110**, information relating to an emergency condition, boundaries and/or other identifying information for an area affected by the emergency condition, and/or instructions for recipients of the alert **110** and/or the device that is to send the alert **110**. Because the alert trigger **120** can include additional and/or alternative information, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

From operation **212**, the method **200** proceeds to operation **214**. The method **200** ends at operation **214**.

Turning now to FIG. **3**, aspects of a method **300** for broadcasting an alert from a device will be described in detail, according to an illustrative embodiment. For purposes of illustrating and describing the concepts of the present disclosure, the method **300** will be described as being performed by the user device **102** via execution of one or more software modules such as, for example, the alert application **108**. It should be understood that additional and/or alternative devices and/or network nodes can provide the functionality described herein via execution of one or more modules, applications, and/or other software including, but not limited to, the alert application **108**. Thus, the illustrated embodiments are illustrative, and should not be viewed as being limiting in any way.

The method **300** begins at operation **302**. At operation **302**, the user device **102** receives a request for operational data **114**. As explained above with reference to FIGS. **1-2**, it can be appreciated that the user device **102** may receive the request for the operational data **114** from the server computer **118** and/or that the request may be generated by the server computer **118** in response to the server computer **118** identifying an emergency condition. In some embodiments of the concepts and technologies described herein, the user device **102** may not receive an explicit request for the operational data **114**.

In some embodiments, the user device **102** may be configured, for example by executing the alert application **108** or other computer-executable instructions, to periodically generate the operational data **114** and/or to generate the operational data **114** upon occurrence of various triggering conditions such as entering the location **122**, passage of certain time intervals or durations, and/or occurrence of other triggering events or the like. Thus, it can be appreciated that the request received in operation **302** may include an explicit request and/or may include an implicit request. Because the operational data **114** can be requested or obtained from the user device **102** in various ways, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

From operation **302**, the method **300** proceeds to operation **304**. At operation **304**, the user device **102** can provide the operational data **114** to the requestor. Although not explicitly shown in FIG. **3**, it should be understood that the user device **102** can generate the operational data **114**. In some embodiments, wherein the operational data **114** includes location data, the user device **102** can obtain its geographic location, e.g., by activating a global positioning system ("GPS") receiver at the user device **102**, and formatting data that indicates the geographic location of the user device **102** for inclusion in the operational data **114**.

Similarly, in some embodiments wherein the operational data **114** includes battery status information, the user device **102** can analyze its battery status and can format data that indicates the battery status of the user device **102** for inclusion in the operational data **114**. Similarly, in some embodiments wherein the operational data **114** includes WiFi status information, the user device **102** can analyze its WiFi transceiver to determine an operating state of the WiFi transceiver, as well as current usage and/or availability for the WiFi transceiver. The user device **102** can format data that indicates the WiFi status of the user device **102** for inclusion in the operational data **114**. Because the operational data **114** can include additional and/or alternative information, and because the user device **102** can generate the operational data **114** in additional and/or alternative ways, it should be understood that these

examples are illustrative and therefore should not be construed as being limiting in any way.

From operation **304**, the method **300** proceeds to operation **306**. At operation **306**, the user device **102** can receive an alert trigger such as the alert trigger **120**. As explained herein, the alert trigger **120** can prompt the user device **102** to broadcast an alert **110** to devices at or near a proximity of the user device **102**. As explained above, the alert trigger **120** can include, but is not limited to, instructions for generating an alert **110**, information relating to an emergency condition at a particular location or other affected area, data for inclusion in the alert **110**, combinations thereof, or the like. The alert trigger **120** can be configured to cause a device that receives the alert trigger **120** to generate an alert **110**.

From operation **306**, the method **300** proceeds to operation **308**. At operation **308**, the user device **102** can create or activate a WiFi network and/or other connection such as a hotspot, an access point, a peer-to-peer connection, or the like. For example, the user device **102** can create or activate a WiFi hotspot or a WiFi access point. According to various embodiments of the concepts and technologies described herein, the WiFi hotspot or access point created or activated by the user device **102** is created or activated with a dedicated service set identification ("SSID") or other unique identifier. As explained above, the dedicated SSID can correspond to an SSID that is used only with WiFi hardware that may be being used to communicate regarding emergency conditions. As such, data transmitted via any WiFi hardware using the dedicated SSID can be understood by devices configured to recognize the SSID as being emergency transmissions.

In some embodiments, devices at or near the user device **102** can be configured to execute an application program that is configured to recognize transmissions via WiFi hardware using the dedicated SSID. In some embodiments, for example, the device **112** and/or other devices can execute an application program similar or even identical to the alert application **108** executed by the user device **102**. Via execution of the application program, the devices **112** and/or other devices can monitor radio signals at or near the devices **112** and/or other devices to identify transmissions occurring via WiFi hardware using the dedicated SSID. Thus, the devices **112** and/or other devices can be configured to recognize emergency transmissions based upon recognizing transmissions associated with the dedicated SSID. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

From operation **308**, the method **300** proceeds to operation **310**. At operation **310**, the user device **102** can broadcast an alert such as the alert **110** shown in FIG. **1**. Although not shown in FIG. **3**, the user device **102** can be configured to generate the alert **110** based upon data from various sources such as, for example, the alert trigger **120**. The alert **110** can include information describing an emergency condition, instructions for responding to the emergency, a location or locations associated with the emergency condition, and/or other information. In operation **310**, the user device **102** can broadcast the alert **110** via the WiFi hotspot activated or created in operation **308**.

From operation **310**, the method **300** proceeds to operation **312**. At operation **312**, the user device **102** can deactivate the WiFi network activated or created in operation **308** and/or used in operation **310**. By activating the WiFi hotspot or access point only upon receiving the alert trigger **120**, and by deactivating the WiFi hotspot or access point after broadcasting the alert **110**, the user device **102** can be configured to conserve resources such as battery power, or the like. Because the WiFi hotspot or access point can be deactivated for additional and/or alternative reasons, it should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

From operation **312**, the method **300** proceeds to operation **314**. The method **300** ends at operation **314**.

Turning now to FIG. **4**, aspects of a method **400** for receiving a broadcast alert from a device will be described in detail, according to an illustrative embodiment. For purposes of illustrating and describing the concepts of the present disclosure, the method **400** will be described as being performed by the device **112** via execution of one or more software modules such as, for example, a software program that provides functionality similar or even identical to the alert application **108** described above with reference to the user device **102**. It should be understood that additional and/or alternative devices and/or network nodes can provide the functionality described herein via execution of one or more modules, applications, and/or other software. Thus, the illustrated embodiments are illustrative, and should not be viewed as being limiting in any way.

The method **400** begins at operation **402**. At operation **402**, the device **112** can monitor an area for a communication associated with a dedicated SSID. As explained above in detail, some embodiments of the concepts and technologies described herein can use WiFi transmissions over WiFi hotspots, access points, or the like using a dedicated SSID. As such, communications occurring via WiFi hotspots, access points, or the like using the dedicated SSID can be recognized by devices as corresponding to emergency communications or broadcasts. In the example embodiment illustrated and described in FIG. **4**, the device **112** can be configured to recognize communications occurring via WiFi hotspots, access points, or the like using the dedicated SSID as emergency broadcast. As such, the device **112** can be configured to monitor wireless transmissions at or near the device **112** to detect communications occurring via WiFi hotspots, access points, or the like using the dedicated SSID. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

From operation **402**, the method **400** proceeds to operation **404**. At operation **404**, the device **112** can detect a communication associated with the dedicated SSID. In particular, the device can detect a communication occurring via a WiFi hotspot, access point, or the like using the dedicated SSID. In some embodiments of the concepts and technologies described herein, the device **112** can monitor WiFi signals and determine, based upon the monitoring, that a WiFi hotspot, access point, or the like, exists with the dedicated SSID. Because various embodiments of the concepts and technologies described herein activate a WiFi hotspot or access point only to broadcast the alert **110**, the presence or existence of the WiFi hotspot or access point associated with the dedicated SSID can be understood to indicate that an emergency condition exists. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

In some other embodiments, the device **112** can receive a communication from one or more entities such as a network element or other devices, nodes, systems, or the like. The communication can indicate that an alert is available and/or that a WiFi channel or network at or near the device **112** should be monitored or accessed to obtain an alert. Thus, some embodiments of the concepts and technologies described herein can support generating alerts to one or more devices **112** to monitor the WiFi channels or networks at or near the devices **112** instead of the devices **112** monitoring WiFi channels or the like to detect the presence of the dedi-

cated SSID. It can be appreciated that a network or network device may broadcast a message to the devices **112** and/or other devices to monitor the WiFi channel without using excessive network resources since such a message may include a single bit message or a message having a size of only several bits. As such, some embodiments of the concepts and technologies described herein enable reduction of amounts of broadcast data by broadcasting only a small message to devices and then enabling local broadcast of more extensive data. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

From operation **404**, the method **400** proceeds to operation **406**. At operation **406**, the device **112** can connect to a WiFi resource associated with the dedicated SSID. Thus, for example, the device **112** can connect to a WiFi hotspot associated with the dedicated SSID, an access point associated with the dedicated SSID, another device or network associated with the SSID, combinations thereof, or the like.

From operation **406**, the method **400** proceeds to operation **408**. At operation **408**, the device **112** can receive an alert such as the alert **110** via the WiFi resource connected to in operation **406**. As noted above, the alert **110** can indicate that an emergency condition exists and can define an area affected by the emergency condition. The alert **110** also can provide instructions for responding to the emergency, or the like. In some embodiments, the alert **110** can include computer-executable code for generating a graphical user interface element for informing a user or other entity that the emergency condition exists at or near the device **112**.

One example of a graphical user interface that can be generated by the device **112** based upon the contents of the alert **110** received in operation **408**, and/or by rendering a graphical user interface included in the alert **110** received in operation **408** is illustrated and described in more detail with reference to FIG. **5**. Because the device **110** can inform a user or other entity about the emergency condition in additional and/or alternative ways, and because the alert **110** received in operation **408** may not include a graphic user interface or interface element, it should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

From operation **408**, the method **400** proceeds to operation **410**. The method **400** ends at operation **410**.

FIG. **5** is a user interface ("UI") diagram showing aspects of a user interface ("UI") for interacting with, configuring, and/or providing functionality associated with an alert service, according to an illustrative embodiment of the concepts and technologies described herein. FIG. **5** shows an illustrative screen display **500** generated by a device such as the user device **102**. According to various embodiments, the user device **102** can generate the screen display **500** and/or other screen displays in conjunction with execution of the alert application **108** and/or interactions with the alert service **110**. It should be appreciated that the UI diagram illustrated in FIG. **5** is illustrative of one contemplated example of a UI and therefore should not be construed as being limited in any way.

The screen display **500** can include various menus and/or menu options (not shown in FIG. **5**). The screen display **500** also can include an alert display window **502**. The alert display window **502** can be presented as an overlay on top of any other user interface elements to present an alert such as the alert **110** shown in FIG. **1** to a user of the device. The alert display window **502** also can be interacted with by a user or other entity to dismiss the alert **100**, for example, via selecting the UI control **504** to dismiss the alert **110**.

In the embodiment shown in FIG. **5**, the alert display window **502** includes an indication **506** of the emergency. The indication **506** can include data indicating a source of the emergency information being presented by way of the alert display window **502**. In the illustrated embodiment, the source of the information is illustrated as being the National Alert Service (NAS). It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The indication **506** also can indicate a type of emergency condition being presented by way of the alert display window **502**. In the illustrated embodiment, the type of emergency condition includes an explosion. It should be understood that this example is illustrative and therefore should not be construed as being limiting in any way.

The indication **506** also can indicate a location of the emergency that is associated with the emergency condition about which the user is being warned by way of presentation of the alert display window **502**. In the illustrated embodiment, the location of the emergency condition is indicated as in an area of the user, but it should be understood that the indication **506** can include a street address, city block, neighborhood, county, state, or the like. Thus, it should be understood that the illustrated example is illustrative and therefore should not be construed as being limiting in any way.

As shown in the embodiment illustrated in FIG. **5**, the alert display window **502** also can include instructions **508** relating to the emergency. The instructions **506** can instruct a recipient of the alert regarding the emergency and/or how to respond to the emergency. In some embodiments, the instructions **508** can include evacuation plans, instructions to remain in a current location, instructions for responding to weather conditions, instructions to activate applications or services via the telephone, combinations thereof, or the like. In the illustrated embodiment, the instructions **508** include travel instructions and device usage instructions. Because additional and/or alternative instructions can be included in the instructions **508**, it should be understood that these examples are illustrative and therefore should not be construed as being limiting in any way.

Turning now to FIG. **6**, additional details of the network **104** are illustrated, according to an illustrative embodiment. The network **104** includes a cellular network **602**, a packet data network **604**, for example, the Internet, and a circuit switched network **606**, for example, a publicly switched telephone network ("PSTN"). The cellular network **602** includes various components such as, but not limited to, base transceiver stations ("BTSs"), Node-B's or e-Node-B's, base station controllers ("BSCs"), radio network controllers ("RNCs"), mobile switching centers ("MSCs"), mobile management entities ("MMEs"), short message service centers ("SMSCs"), multimedia messaging service centers ("MMSCs"), home location registers ("HLRs"), home subscriber servers ("HSSs"), visitor location registers ("VLRs"), charging platforms, billing platforms, voicemail platforms, GPRS core network components, location service nodes, an IP Multimedia Subsystem ("IMS"), and the like. The cellular network **602** also includes radios and nodes for receiving and transmitting voice, data, and combinations thereof to and from radio transceivers, networks, the packet data network **604**, and the circuit switched network **606**.

A mobile communications device **608**, such as, for example, a cellular telephone, a user equipment, a mobile terminal, a PDA, a laptop computer, a handheld computer, and combinations thereof, can be operatively connected to the cellular network **602**. The cellular network **602** can be configured as a 2G GSM network and can provide data commu-

nications via GPRS and/or EDGE. Additionally, or alternatively, the cellular network **602** can be configured as a 3G UMTS network and can provide data communications via the HSPA protocol family, for example, HSDPA, EUL (also referred to as HSUPA), and HSPA+. The cellular network **602** also is compatible with 4G mobile communications standards as well as evolved and future mobile standards.

The packet data network **604** includes various devices, for example, servers, computers, databases, and other devices in communication with another, as is generally known. The packet data network **604** devices are accessible via one or more network links. The servers often store various files that are provided to a requesting device such as, for example, a computer, a terminal, a smartphone, or the like. Typically, the requesting device includes software (a "browser") for executing a web page in a format readable by the browser or other software. Other files and/or data may be accessible via "links" in the retrieved files, as is generally known. In some embodiments, the packet data network **604** includes or is in communication with the Internet. The circuit switched network **606** includes various hardware and software for providing circuit switched communications. The circuit switched network **606** may include, or may be, what is often referred to as a plain old telephone system (POTS). The functionality of a circuit switched network **606** or other circuit-switched network are generally known and will not be described herein in detail.

The illustrated cellular network **602** is shown in communication with the packet data network **604** and a circuit switched network **606**, though it should be appreciated that this is not necessarily the case. One or more Internet-capable devices **610**, for example, a PC, a laptop, a portable device, or another suitable device, can communicate with one or more cellular networks **602**, and devices connected thereto, through the packet data network **604**. It also should be appreciated that the Internet-capable device **610** can communicate with the packet data network **604** through the circuit switched network **606**, the cellular network **602**, and/or via other networks (not illustrated).

As illustrated, a communications device **612**, for example, a telephone, facsimile machine, modem, computer, or the like, can be in communication with the circuit switched network **606**, and therethrough to the packet data network **604** and/or the cellular network **602**. It should be appreciated that the communications device **612** can be an Internet-capable device, and can be substantially similar to the Internet-capable device **610**. In the specification, the network **104** is used to refer broadly to any combination of the networks **602**, **604**, **606**. It should be appreciated that substantially all of the functionality described with reference to the network **104** can be performed by the cellular network **602**, the packet data network **604**, and/or the circuit switched network **606**, alone or in combination with other networks, network elements, and the like.

FIG. **7** is a block diagram illustrating a computer system **700** configured to provide the functionality described herein for effective broadcasting of emergency messages, in accordance with various embodiments of the concepts and technologies disclosed herein. The computer system **700** includes a processing unit **702**, a memory **704**, one or more user interface devices **706**, one or more input/output ("I/O") devices **708**, and one or more network devices **710**, each of which is operatively connected to a system bus **712**. The bus **712** enables bi-directional communication between the processing unit **702**, the memory **704**, the user interface devices **706**, the I/O devices **708**, and the network devices **710**.

The processing unit **702** may be a standard central processor that performs arithmetic and logical operations, a more specific purpose programmable logic controller ("PLC"), a programmable gate array, or other type of processor known to those skilled in the art and suitable for controlling the operation of the server computer. Processing units are generally known, and therefore are not described in further detail herein.

The memory **704** communicates with the processing unit **702** via the system bus **712**. In some embodiments, the memory **704** is operatively connected to a memory controller (not shown) that enables communication with the processing unit **702** via the system bus **712**. The memory **704** includes an operating system **714** and one or more program modules **716**. The operating system **714** can include, but is not limited to, members of the WINDOWS, WINDOWS CE, and/or WINDOWS MOBILE families of operating systems from MICROSOFT CORPORATION, the LINUX family of operating systems, the SYMBIAN family of operating systems from SYMBIAN LIMITED, the BREW family of operating systems from QUALCOMM CORPORATION, the MAC OS, iOS, and/or LEOPARD families of operating systems from APPLE CORPORATION, the FREEBSD family of operating systems, the SOLARIS family of operating systems from ORACLE CORPORATION, other operating systems, and the like.

The program modules **716** may include various software and/or program modules described herein. In some embodiments, for example, the program modules **716** include the alert service **116**. This and/or other programs can be embodied in computer-readable media containing instructions that, when executed by the processing unit **702**, perform one or more of the methods **200**, **300**, **400** described in detail above with respect to FIGS. **2-4**. According to embodiments, the program modules **716** may be embodied in hardware, software, firmware, or any combination thereof. Although not shown in FIG. **7**, it should be understood that the memory **704** also can be configured to store the operational data **114**, the alert trigger **120**, the emergency indicator **124**, and/or other data, if desired.

By way of example, and not limitation, computer-readable media may include any available computer storage media or communication media that can be accessed by the computer system **700**. Communication media includes computer-readable instructions, data structures, program modules, or other data in a modulated data signal such as a carrier wave or other transport mechanism and includes any delivery media. The term "modulated data signal" means a signal that has one or more of its characteristics changed or set in a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of the any of the above should also be included within the scope of computer-readable media.

Computer storage media includes volatile and non-volatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules, or other data. Computer storage media includes, but is not limited to, RAM, ROM, Erasable Programmable ROM ("EPROM"), Electrically Erasable Programmable ROM ("EEPROM"), flash memory or other solid state memory technology, CD-ROM, digital versatile disks ("DVD"), or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the computer system **700**. In the claims, the phrase "computer storage

medium" and variations thereof does not include waves or signals per se and/or communication media.

The user interface devices **706** may include one or more devices with which a user accesses the computer system **700**. The user interface devices **706** may include, but are not limited to, computers, servers, personal digital assistants, cellular phones, or any suitable computing devices. The I/O devices **708** enable a user to interface with the program modules **716**. In one embodiment, the I/O devices **708** are operatively connected to an I/O controller (not shown) that enables communication with the processing unit **702** via the system bus **712**. The I/O devices **708** may include one or more input devices, such as, but not limited to, a keyboard, a mouse, or an electronic stylus. Further, the I/O devices **708** may include one or more output devices, such as, but not limited to, a display screen or a printer.

The network devices **710** enable the computer system **700** to communicate with other networks or remote systems via a network, such as the network **104**. Examples of the network devices **710** include, but are not limited to, a modem, a radio frequency ("RF") or infrared ("IR") transceiver, a telephonic interface, a bridge, a router, or a network card. The network **104** may include a wireless network such as, but not limited to, a Wireless Local Area Network ("WLAN") such as a WI-FI network, a Wireless Wide Area Network ("WWAN"), a Wireless Personal Area Network ("WPAN") such as BLUETOOTH, a Wireless Metropolitan Area Network ("WMAN") such a WiMAX network, or a cellular network. Alternatively, the network **104** may be a wired network such as, but not limited to, a Wide Area Network ("WAN") such as the Internet, a Local Area Network ("LAN") such as the Ethernet, a wired Personal Area Network ("PAN"), or a wired Metropolitan Area Network ("MAN").

Turning now to FIG. **8**, an illustrative mobile device **800** and components thereof will be described. In some embodiments, the user device **102** and/or one or more of the devices **112** described above with reference to FIGS. **1-5** can be configured as and/or can have an architecture similar or identical to the mobile device **800** described herein in FIG. **8**. It should be understood, however, that the user device **102** and/or the devices **112** may or may not include the functionality described herein with reference to FIG. **8**. While connections are not shown between the various components illustrated in FIG. **8**, it should be understood that some, none, or all of the components illustrated in FIG. **8** can be configured to interact with one other to carry out various device functions. In some embodiments, the components are arranged so as to communicate via one or more busses (not shown). Thus, it should be understood that FIG. **8** and the following description are intended to provide a general understanding of a suitable environment in which various aspects of embodiments can be implemented, and should not be construed as being limiting in any way.

As illustrated in FIG. **8**, the mobile device **800** can include a display **802** for displaying data. According to various embodiments, the display **802** can be configured to display various graphical user interface ("GUI") elements for presenting alerts **110**, text, images, video, virtual keypads and/or keyboards, messaging data, notification messages, metadata, internet content, device status, time, date, calendar data, device preferences, map and location data, combinations thereof, and/or the like. The mobile device **800** also can include a processor **804** and a memory or other data storage device ("memory") **806**. The processor **804** can be configured to process data and/or can execute computer-executable instructions stored in the memory **806**. The computer-executable instructions executed by the processor **804** can include, for example, an operating system **808**, one or more applications **810** such as the alert application **108**, other computer-executable instructions stored in a memory **806**, or the like. In some embodiments, the applications **810** also can include a UI application (not illustrated in FIG. **8**).

The UI application can interface with the operating system **808**, such as the operating system **106** shown in FIG. **1**, to facilitate user interaction with functionality and/or data stored at the mobile device **800** and/or stored elsewhere. In some embodiments, the operating system **808** can include a member of the SYMBIAN OS family of operating systems from SYMBIAN LIMITED, a member of the WINDOWS MOBILE OS and/or WINDOWS PHONE OS families of operating systems from MICROSOFT CORPORATION, a member of the PALM WEBOS family of operating systems from HEWLETT PACKARD CORPORATION, a member of the BLACKBERRY OS family of operating systems from RESEARCH IN MOTION LIMITED, a member of the IOS family of operating systems from APPLE INC., a member of the ANDROID OS family of operating systems from GOOGLE INC., and/or other operating systems. These operating systems are merely illustrative of some contemplated operating systems that may be used in accordance with various embodiments of the concepts and technologies described herein and therefore should not be construed as being limiting in any way.

The UI application can be executed by the processor **804** to aid a user in entering content, for viewing alerts and/or dismissing alerts, configuring settings, manipulating address book content and/or settings, multimode interaction, interacting with other applications **810**, and otherwise facilitating user interaction with the operating system **808**, the applications **810**, and/or other types or instances of data **812** that can be stored at the mobile device **800**. The data **812** can include, for example, the alert **110**, the alert trigger **120**, the operational data **114**, and/or other applications or program modules. According to various embodiments, the data **812** can include, for example, presence applications, visual voice mail applications, messaging applications, text-to-speech and speech-to-text applications, add-ons, plug-ins, email applications, music applications, video applications, camera applications, location-based service applications, power conservation applications, game applications, productivity applications, entertainment applications, enterprise applications, combinations thereof, and the like. The applications **810**, the data **812**, and/or portions thereof can be stored in the memory **806** and/or in a firmware **814**, and can be executed by the processor **804**. The firmware **814** also can store code for execution during device power up and power down operations. It can be appreciated that the firmware **814** can be stored in a volatile or non-volatile data storage device including, but not limited to, the memory **806** and/or a portion thereof.

The mobile device **800** also can include an input/output ("I/O") interface **816**. The I/O interface **816** can be configured to support the input/output of data such as location information, the operational data **114**, the emergency indicator **124**, the alert trigger **120**, the alert **110**, user information, organization information, presence status information, user IDs, passwords, and application initiation (start-up) requests. In some embodiments, the I/O interface **816** can include a hardwire connection such as a universal serial bus ("USB") port, a mini-USB port, a micro-USB port, an audio jack, a PS2 port, an IEEE 1394 ("FIREWIRE") port, a serial port, a parallel port, an Ethernet (RJ45) port, an RJ11 port, a proprietary port, combinations thereof, or the like. In some embodiments, the mobile device **800** can be configured to synchronize with another device to transfer content to and/or from the mobile

device **800**. In some embodiments, the mobile device **800** can be configured to receive updates to one or more of the applications **810** via the I/O interface **816**, though this is not necessarily the case. In some embodiments, the I/O interface **816** accepts I/O devices such as keyboards, keypads, mice, interface tethers, printers, plotters, external storage, touch/multi-touch screens, touch pads, trackballs, joysticks, microphones, remote control devices, displays, projectors, medical equipment (e.g., stethoscopes, heart monitors, and other health metric monitors), modems, routers, external power sources, docking stations, combinations thereof, and the like. It should be appreciated that the I/O interface **816** may be used for communications between the mobile device **800** and a network device or local device.

The mobile device **800** also can include a communications component **818**. The communications component **818** can be configured to interface with the processor **804** to facilitate wired and/or wireless communications with one or more networks such as the network **104** described herein. In some embodiments, other networks include networks that utilize non-cellular wireless technologies such as WI-FI or WIMAX. In some embodiments, the communications component **818** includes a multimode communications subsystem for facilitating communications via the cellular network and one or more other networks.

The communications component **818**, in some embodiments, includes one or more transceivers. The one or more transceivers, if included, can be configured to communicate over the same and/or different wireless technology standards with respect to one another. For example, in some embodiments one or more of the transceivers of the communications component **818** may be configured to communicate using GSM, CDMAONE, CDMA2000, LTE, and various other 2G, 2.5G, 3G, 4G, and greater generation technology standards. Moreover, the communications component **818** may facilitate communications over various channel access methods (which may or may not be used by the aforementioned standards) including, but not limited to, TDMA, FDMA, W-CDMA, OFDM, SDMA, and the like.

In addition, the communications component **818** may facilitate data communications using GPRS, EDGE, the HSPA protocol family including HSDPA, EUL or otherwise termed HSUPA, HSPA+, and various other current and future wireless data access standards. In the illustrated embodiment, the communications component **818** can include a first transceiver ("TxRx") **820**A that can operate in a first communications mode (e.g., GSM). The communications component **818** also can include an N^{th} transceiver ("TxRx") **820**N that can operate in a second communications mode relative to the first transceiver **820**A (e.g., UMTS). While two transceivers **820**A-N (hereinafter collectively and/or generically referred to as "transceivers **820**") are shown in FIG. **8**, it should be appreciated that less than two, two, and/or more than two transceivers **820** can be included in the communications component **818**.

The communications component **818** also can include an alternative transceiver ("Alt TxRx") **822** for supporting other types and/or standards of communications. According to various contemplated embodiments, the alternative transceiver **822** can communicate using various communications technologies such as, for example, WI-FI, WIMAX, BLUETOOTH, infrared, infrared data association ("IRDA"), near field communications ("NFC"), other RF technologies, combinations thereof, and the like. In some embodiments, the communications component **818** also can facilitate reception from terrestrial radio networks, digital satellite radio networks, internet-based radio service networks, combinations thereof, and the like. The communications component **818** can process data from a network such as the Internet, an intranet, a broadband network, a WI-FI hotspot, an Internet service provider ("ISP"), a digital subscriber line ("DSL") provider, a broadband provider, combinations thereof, or the like.

The mobile device **800** also can include one or more sensors **824**. The sensors **824** can include temperature sensors, light sensors, air quality sensors, movement sensors, orientation sensors, noise sensors, proximity sensors, or the like. As such, it should be understood that the sensors **824** can include, but are not limited to, accelerometers, magnetometers, gyroscopes, infrared sensors, noise sensors, microphones, combinations thereof, or the like. Additionally, audio capabilities for the mobile device **800** may be provided by an audio I/O component **826**. The audio I/O component **826** of the mobile device **800** can include one or more speakers for the output of audio signals, one or more microphones for the collection and/or input of audio signals, and/or other audio input and/or output devices.

The illustrated mobile device **800** also can include a subscriber identity module ("SIM") system **828**. The SIM system **828** can include a universal SIM ("USIM"), a universal integrated circuit card ("UICC") and/or other identity devices. The SIM system **828** can include and/or can be connected to or inserted into an interface such as a slot interface **830**. In some embodiments, the slot interface **830** can be configured to accept insertion of other identity cards or modules for accessing various types of networks. Additionally, or alternatively, the slot interface **830** can be configured to accept multiple subscriber identity cards. Because other devices and/or modules for identifying users and/or the mobile device **800** are contemplated, it should be understood that these embodiments are illustrative, and should not be construed as being limiting in any way.

The mobile device **800** also can include an image capture and processing system **832** ("image system"). The image system **832** can be configured to capture or otherwise obtain photos, videos, and/or other visual information. As such, the image system **832** can include cameras, lenses, charge-coupled devices ("CCDs"), combinations thereof, or the like. The mobile device **800** may also include a video system **834**. The video system **834** can be configured to capture, process, record, modify, and/or store video content. Photos and videos obtained using the image system **832** and the video system **834**, respectively, may be added as message content to an MMS message, email message, and sent to another mobile device. The video and/or photo content also can be shared with other devices via various types of data transfers via wired and/or wireless communication devices as described herein.

The mobile device **800** also can include one or more location components **836**. The location components **836** can be configured to send and/or receive signals to determine a geographic location of the mobile device **800**. According to various embodiments, the location components **836** can send and/or receive signals from global positioning system ("GPS") devices, assisted-GPS ("A-GPS") devices, WI-FI/WIMAX and/or cellular network triangulation data, combinations thereof, and the like. The location component **836** also can be configured to communicate with the communications component **818** to retrieve triangulation data for determining a location of the mobile device **800**. In some embodiments, the location component **836** can interface with cellular network nodes, telephone lines, satellites, location transmitters and/or beacons, wireless network transmitters and receivers, combinations thereof, and the like. In some embodiments, the location component **836** can include and/or can

communicate with one or more of the sensors **824** such as a compass, an accelerometer, and/or a gyroscope to determine the orientation of the mobile device **800**. Using the location component **836**, the mobile device **800** can generate and/or receive data to identify its geographic location, or to transmit data used by other devices to determine the location of the mobile device **800**. The location component **836** may include multiple components for determining the location and/or orientation of the mobile device **800**.

The illustrated mobile device **800** also can include a power source **838**. The power source **838** can include one or more batteries, power supplies, power cells, and/or other power subsystems including alternating current ("AC") and/or direct current ("DC") power devices. The power source **838** also can interface with an external power system or charging equipment via a power I/O component **840**. Because the mobile device **800** can include additional and/or alternative components, the above embodiment should be understood as being illustrative of one possible operating environment for various embodiments of the concepts and technologies described herein. The described embodiment of the mobile device **800** is illustrative, and should not be construed as being limiting in any way.

Based on the foregoing, it should be appreciated that systems and methods for effective broadcasting of emergency messages have been disclosed herein. Although the subject matter presented herein has been described in language specific to computer structural features, methodological and transformative acts, specific computing machinery, and computer-readable media, it is to be understood that the concepts and technologies disclosed herein are not necessarily limited to the specific features, acts, or media described herein. Rather, the specific features, acts and mediums are disclosed as example forms of implementing the concepts and technologies disclosed herein.

The subject matter described above is provided by way of illustration only and should not be construed as limiting. Various modifications and changes may be made to the subject matter described herein without following the example embodiments and applications illustrated and described, and without departing from the true spirit and scope of the embodiments of the concepts and technologies disclosed herein.

We claim:

1. A method comprising:

receiving, at a processor that executes an alert service, an emergency indicator that indicates that an emergency condition exists;

determining, by the processor, a geographic area affected by the emergency condition;

identifying, by the processor, a plurality of devices and a user device located at the geographic area;

obtaining, by the processor, operational data for each of the plurality of devices and the user device;

selecting, by the processor and based upon the operational data, the user device to broadcast, to the plurality of devices, an alert that indicates the emergency condition; and

sending, by the processor, an alert trigger to the user device, wherein the alert trigger causes the user device to

activate a wireless hotspot at the user device, the wireless hotspot being associated with a dedicated service set identifier, and

broadcast, via the wireless hotspot, the alert that indicates the emergency condition.

2. The method of claim **1**, wherein selecting the user device comprises:

determining, for each of the plurality of devices and the user device, a battery level; and

selecting, based upon the battery level, the user device.

3. The method of claim **1**, wherein the operational data comprises WiFi status information.

4. The method of claim **1**, wherein the dedicated service set identifier comprises a service set identifier used for emergency communications, and wherein each of the plurality of devices monitors wireless signals to detect activation of the wireless hotspot with the dedicated service set identifier.

5. The method of claim **1**, wherein the emergency indicator is received from a social networking service.

6. The method of claim **1**, wherein the emergency indicator comprises an implicit indicator that the emergency condition exists, the implicit indicator being determined based upon analysis of a plurality of social networking posts.

7. The method of claim **1**, wherein the emergency indicator comprises an explicit indicator that the emergency condition exists.

8. The method of claim **1**, wherein the emergency indicator is received from an emergency dispatcher, and wherein the emergency indicator comprises an explicit indicator that the emergency condition exists.

9. The method of claim **1**, wherein the alert that indicates the emergency condition comprises a description of the emergency condition, an indication of the geographic area, and instructions for responding to the emergency condition.

10. The method of claim **1**, wherein the user device comprises a smart phone that executes an alert application, and wherein the user device generates the alert that indicates the emergency condition in response to the alert trigger and broadcasts the alert that indicates the emergency condition via the wireless hotspot.

11. A system comprising:

a processor; and

a memory that stores computer-executable instructions that, when executed by the processor, cause the processor to perform operations comprising

receiving an emergency indicator that indicates that an emergency condition exists,

determining a geographic area associated with the emergency condition,

identifying a plurality of devices and a user device located at the geographic area,

obtaining operational data for each of the plurality of devices and the user device,

selecting, based upon the operational data, the user device to broadcast, to the plurality of devices, an alert that indicates the emergency condition, and

sending an alert trigger to the user device, wherein the alert trigger causes the user device to

activate a wireless hotspot at the user device, the wireless hotspot being associated with a dedicated service set identifier, and

broadcast, via the wireless hotspot, the alert that indicates the emergency condition.

12. The system of claim **11**, further comprising a server computer that hosts a social networking service, wherein the emergency indicator is received from the server computer.

13. The system of claim **11**, further comprising a computer device that is associated with an emergency dispatcher, wherein the emergency indicator is received from the computer device.

14. The system of claim **11**, wherein selecting the user device comprises:

determining, for each of the plurality of devices and the user device, a battery level; and

selecting, based upon the battery level, the user device.

15. The system of claim **11**, wherein the operational data comprises WiFi status information.

16. The system of claim **11**, wherein the dedicated service set identifier comprises a service set identifier used for emergency communications, and wherein each of the plurality of devices monitors wireless signals to detect activation of the wireless hotspot with the dedicated service set identifier.

17. A computer storage medium having computer-executable instructions stored thereon that, when executed by a processor, cause the processor to perform operations comprising:

receiving an emergency indicator that indicates that an emergency condition exists;

determining a geographic area associated with the emergency condition;

identifying a plurality of devices and a user device located at the geographic area;

obtaining operational data for each of the plurality of devices and the user device;

selecting the user device to broadcast, to the plurality of devices, an alert that indicates the emergency condition; and

sending an alert trigger to the user device, wherein the alert trigger causes the user device to

activate a wireless hotspot at the user device, the wireless hotspot being associated with a dedicated service set identifier, and

broadcast, via the wireless hotspot, the alert that indicates the emergency condition.

18. The computer storage medium of claim **17**, wherein selecting the user device comprises:

determining, for each of the plurality of devices and the user device, a battery level; and

selecting, based upon the battery level, the user device.

19. The computer storage medium of claim **17**, wherein the operational data comprises WiFi status information.

20. The computer storage medium of claim **17**, wherein the dedicated service set identifier comprises a service set identifier used for emergency communications, and wherein each of the plurality of devices monitors wireless signals to detect activation of the wireless hotspot with the dedicated service set identifier.

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